The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 728.---Vol. XIX.] LONDON, SATURDAY, AUGUST 4, 1849. [Price 6d.

IMPORTANT and EXTENSIVE SALE of HORSES, HARNESS, ENGINES, and RAILWAY PLANT (on the Manchester, Sheffield, & Lincolnshire Railway) at GAINSBRO'.
TO ENGINEERS, RAILWAY CONTRACTORS, FARMERS, BUILDERS, &c.

MR. G. O. BROWN is honoured with instructions from Messrs. Stephenson to OFFER FOR UNRESERVED COMPETITION, BY AUCTION, In a FIELD near the Railway Station, and at the RIVER TRENT BRIDGE, on Tuesday and Wednesday, the 7th and 8th days of August next, the whole of their extensive and VALUABLE STOCK OF 1

RAILWAY PLANT, HORSES, AND ENGINES;

viz.:—One 8-horse, high-pressure, horizontal engine, fixed on a cast-iron frame, 11 feet 4 inches long (by Davy Brothers), cylinder 9 inches, stroke 20 inches, fly-wheel 7 feet diameter, cylinder boiler 19 feet long, 3 feet diameter, and a tube in boiler 19 feet long, 17 inches diameter; Two 6-horse high-pressure (Gough's patent) portable engines, with bell crank, &c., on cast-iron bedplate 7 feet 6 inches by 4 feet 6½ inches, cylinders 7 inches diameter, stroke 20 inches, boiler 7 feet long by 4 feet 4 inches diameter, fly-wheel 7 feet diameter, fire box 2 feet 6 inches diameter, with 14 tubes, each 2 feet 2 inches long and 4¼ inches diameter, chimney 16 feet high, 12 inches diameter.

TEN very superior, young, strong, active, seasoned, CART or RAILWAY HORSES, and THIRTY SETS OF HARNESS.

Also EIGHT very good HARNESS, CAB, or COACH HORSES (the property of Mr. Parker) that are thrown out of work by the discontinuance of coaches through the opening of this railway.

A LIME MILL, with a pair of French horizontal stones, with shafting and driving gear complete; would easily make a flour mill.

A MORTAR-MIEL complete, with metal pan and a pair of upright stones 4 feet diameter. Also a lime crushing mill, with metal rollers, shafting and driving gear, which would easily be converted into a bone mill.

GOUGH'S PATENT DOUBLE PUMP, with two 12-inch working barrels. Also one 15-inch and two 10-inch metal pumps, with sundry lengths of metal pipe to match. Two metal hand pumps, with 4-inch working barrels complete. Three double and three single purchase crabs. Three hearths of smith's tools complete, with bellows, anvil, tongs, swages, mandrills, drifts, hammers, &c.

SUNDRY OLD SCRAP IRON AND METAL.

Four setts of double flanged wheels, with spur and pinion gear for travelling cranes. Also 16 sets strong 12-inch wheels and axles, 4 feet 1 inch guage. Three wood cranes, with crabs, block and chains complete, that will lift up to 9 tons. A quantity of two and three sheave blocks, with ropes and chains to match.

TWO new HYDRAULIC PRESSES, capable of lifting 50 tons each.

5000 feet of 3 by 11, and 3 by 9-inch deals; 6000 feet of Memel and other foreign timber, in lots; 10,000 temporary sleepers, suitable for collieries; 5000 Memel and larch sleepers, 8 feet 9 inches long, by 10 inches, by 5 inches, and 9 inches, by 4½ inches; 150 navvies' barrows, 3 single and 3 double horse carts, 2 timber carriages, 12 three-wheeled carts, one excellent gig, and one superior dog cart.

500 tons of flat bottomed contractors' rails, 45 lbs per yard; 10 tons of 1¼ inch square bars; a small wood crane, suitable for a grocer's warehouse, with blocks and rope complete; large beam and scales and metal weights; one coffee mill, with fly-wheel; one sugar mill; flour scales, beam and weights, two small counter scales, six 12 lbs. canisters, and sundry other articles, suitable for the grocery trade; also a quantity of navigators' tools, such as round and square-nosed shovels, casting and fly tools, &c.; also a quantity of drapery goods, such as navvie's white and drab slops, fustian, and other trowsers, caps, stockings, &c.; lamp cotton, and cotton waste.

ORDER OF SALE.—The sale will commence each morning at Ten o'clock. On TUESDAY the Horses, Harness, Carts, Gigs, Grocer's Fixtures, and Drapery Goods, will be sold in the Yard near the Station; and on WEDNESDAY the Engines, Timber, Plants, Pumps, and other Machinery, near the Trent Bridge.

The River Trent is navigable for vessels of large burthen, and coasting and other vessels may come and load the engines and other goods at the Trent Bridge, close to the place of sale.—Masbro', July 25, 1849.

WEST OF SCOTLAND MALLEABLE IRON-WORKS, AND LANDS OF BRAIDHIRST AND MILTON.

TO BE SOLD, BY PUBLIC ROUP, within the Royal Exchange Sale Rooms, on Wednesday, the 29th day of August, 1849, at One o'clock in the afternoon, 2

MALLEABLE IRON-WORKS.

These large WORKS, belonging to the West of Scotland Malleable Iron Company, situated at MOTHERWELL, in the parish of Dalziel, and county of Lanark, consisting of REFINERY FIRES, FORGE, RAIL, ROLLING, SLITTING, HOOP, PLATE, and SHEET MILLS;

And, with a little further outlay, capable of producing about 600 tons finished iron weekly.

These works, which have been erected on the most approved plan, have been in operation since May, 1847; and, besides rails, can be made to turn out all the sizes and varieties of iron usually required by the trade.

There are on the ground one blowing engine of about 80-horse power for refineries, two forge and two mill engines, condensing and that work expansively, each about 100-horse power. Between the mill engines there is a small subsidiary high-pressure engine, of about 40-horse power, for driving the guide mills. There are likewise one lathe and one pumping high-pressure engines, each about 20-horse power. All these engines, with one exception, are in first-rate working order.

Attached to the works are smiths', wrights', and fitting-up shops, with turning lathes, cranes, &c., complete. Also, offices, stables, mill manager's house, and 98 workmen's houses, besides ample accommodation in the village of Motherwell, immediately adjoining.

These works are most favourably situated, being surrounded by coal and pig-iron works; and, as the Caledonian Railway forms one of the boundaries of the works, railway communication to all parts of the kingdom is afforded; and the works have a direct communication with the Harbour of Glasgow, distant 10 miles, by the Clydesdale Junction Railway. Upset price, £45,000.

LANDS OF BRAIDHIRST AND MILTON.

These lands, situated in the parish of Dalziel, and county of Lanark, lie contiguous, and extend in all to 390 acres, or thereby, but from that fall to be deducted about 30 acres, set apart for the Malleable Iron Works, to be held under Feu; and about 20 acres occupied by the Village of Motherwell, also held under Feu—leaving about 340 acres to be disposed of, together with the Feu-Duties exigible from the portions feued as aforesaid, which Feu-Duties amount to nearly 300l. per annum.

The lands are most advantageously situated, being bounded on the south-west side by the turnpike road from Glasgow to Lanark, on the south-east by the turnpike road from Edinburgh to Hamilton, and on the north-east, north, and north-west sides by the River Calder; and being intersected by the Wishaw and Coltness Railway, now forming part of the Caledonian Railway, easy access and communication is afforded to all parts of the kingdom.

There is an excellent Farm-Steading on the lands, with Out-Houses and Cottars'-Houses, sufficient for a large farming establishment; and, having been for some years in the hands of the proprietors undergoing improvements, the lands are in the best condition.

The lands contain MINERALS, and the purchaser will obtain right, not only to the minerals in the Unfeued lands, but also to a large portion of those under the Feued Ground. The Coal has been wrought at a moderate depth for more than 12 months, for the supply of the Malleable Iron Works, and has been proved to be of excellent quality.

It is proposed to reserve to the Proprietors of the Malleable Iron Works a right to Feu about ten acres of additional ground, adjoining their works, at the rate of 6l. per acre, (exclusive of Minerals, however), provided the option is exercised within a specified period. Upset price 25,000l.

For further particulars, application may be made to Laurence Hill, Jun., at the works at Motherwell; James Anderson, at the company's office, 88, St. Vincent-street; or to Mondrieff, Paterson, and Forbes, 45, West George-street, Glasgow, in whose hands are the title-deeds and articles of roup, and plans of the property.

Glasgow, 21st July, 1849.

VALUABLE COLLIERY STOCK OF ENGINES, RAILS, WAGGONS, &c.

MR. WETHERELL will SELL, BY AUCTION, on Thursday, the 30th of August next, at Ten o'clock in the forenoon, a LARGE QUANTITY of valuable COLLIERY STOCK, now lying at the SHINCLIFFE STATION, on the York, Newcastle, and Berwick Railway, consisting of ONE ENGINE, of 45-horse power, with boilers, &c.; ONE ENGINE, of 30-horse power, with boiler, &c.

Also, SEVERAL TONS of RAILS and CHAIRS, of various sizes, and FORTY-FIVE SPRING-MOUNTED COAL WAGGONS, in excellent repair. 3

At the same time and place, will BE SOLD, an excellent ENGINE, 30-horse power, with boilers, &c. This engine is now standing at Evenwood Colliery, where it may be seen on application to David Welford, at the Oaks, Evenwood.

N.B.—The stock at Shincliffe Station may be seen on application to Mr. Oxdale, station master, where catalogues may be had; and also of Mr. Brogden, Stockton-on-Tees, and Mr. Wetherell, Durham.—Durham, July 31, 1849.

VALUABLE SILVER-LEAD MINE FOR SALE.—TO BE SOLD, BY AUCTION, at the Angel Inn, HELSTON, in the county of CORNWALL, on Wednesday, the 22d day of August next, by Three o'clock in the afternoon, all that valuable SILVER-LEAD and COPPER MINE, called 4

WHEAL ROSE;

in the parish of SITHNEY, in the said county of CORNWALL, together with the MACHINERY, HALVANS, and MATERIALS thereunto belonging.

Wheal Rose Mine is held under a lease for 21 years (of which term upwards of 15 years remain unexpired), under 1-18th dues, but no dues are payable to the lessor until all costs and other expenses in and about the working of the said mine, from the commencement, shall have been repaid by the produce thereof to the adventurers.

The sett is nearly a mile in length on the course of the lodes, and about half a mile in breadth, and has produced many thousand pounds worth of the richest silver-lead ore, averaging about £20 per ton.

This mine (which affords a good opportunity for the investment of a small capital) is offered to the public, as some of the present adventurers are unable to contribute their proportions of costs towards an extended working of the adventure.

The agents have received instructions to give every information at the mine, and to accompany all parties who may wish to inspect the workings; and for further particulars application may be made to T. J. Hill, Esq., 52, Threadneedle-street, London; or to the purser, Mr. Plomer, Helston, Cornwall.—Dated July 23, 1849.

EXTENSIVE IRON-WORKS FOR SALE, BY PRIVATE BARGAIN, 5

THE BLAIR IRON-WORKS,

Belonging to the Ayrshire Iron Company, with the whole MINERAL FIELDS held by the said company, under favourable leases, including the MALLEABLE IRON-WORKS, immediately adjoining, so far as erected—all as particularly described in former advertisements.—There is a large STOCK of IRONSTONE on the ground, which may be had at a valuation.

For further particulars apply to Mr. Biggart, at the works; Mr. Watson, 32, and Mr. Brown, 35, St. Vincent-place, Glasgow; Messrs. M'Clelland and Mackenzie, accountants, there; Messrs. Gibson-Craig, Dalziel, and Brodie, W.S., Edinburgh; or Messrs. Montgomerie and Fleming, writers, Glasgow—the last being in possession of the title-deeds.

Glasgow, June 20, 1849.

VALUABLE AND EXTENSIVE MINES OF COAL AND IRONSTONE.

TO BE LET, ON LEASE, on most advantageous terms, the COAL and IRONSTONE under a very large tract of land, in the parish of RUABON in the county of DENBIGH, adjoining the Shrewsbury and Chester Railway. 6

The proprietors of the ESTATES on which the Ponkey and Aberderfyn Iron-Works were formerly carried on, have made arrangements TO LET BOTH PROPERTIES TOGETHER, which will give the lessee of them facilities to carry on a lucrative business—very rarely to be met with.

The COALS and IRONSTONE on these ESTATES may be raised at very much less than an average cost, and the quantity proved in them (besides what are under a very large portion of one of them, in which there is no doubt they will be found) is estimated will supply iron-works with materials to make 400 tons of pig-iron weekly for upwards of 30 years, as well as 50,000 tons of the much and justly-celebrated Yard and Wall and Bench Coals per annum for sale, for the same period.

Printed particulars of the property, and lithographed plans of the estates, showing the minerals under them, with calculations as to the expense of making iron from them, as compared with that of manufacturing it in Staffordshire, may be had upon application at the office of the *Mining Journal*, 26, Fleet-street; and at J. Boydell's, 54, Threadneedle-street, London; and at Messrs. Longeville and Williams', solicitors, Oswestry.

Oswestry, June 6, 1849.

TO COAL, COPPER, IRON, CHEMICAL, and other MANUFACTURING COMPANIES.

TO BE LET, ON LEASE, for a term of years, as may be agreed on, a most extensive COAL-FIELD, of the first quality; a FARM, of 240 ACRES of GRASS LAND, with a good commodious DWELLING-HOUSE and attached OFFICES, WALLED GARDEN, STABLING for 50 or 60 horses, from 20 to 30 WORKMEN'S COTTAGES and GARDENS, most eligible sites for the erection of Copper, Iron, Chemical, and other Manufactories, situate at Neath Abbey, in the county of Glamorgan, being close to the navigable River Neath, and only 5 miles from Swansea. 7

Mr. W. Hunter, at Briton Ferry, near Neath, will show the lands and coal.

For particulars apply to Messrs. Adam Murray and Son, surveyors and land agents, 35, Craven-street, Strand, London.

TO BE SOLD,—FOUR-SIXTEENTHS in the ROYAL GEORGE LEAD MINES, situate in the parishes of HOLYWELL and WHITFORD, within 1½ mile of Holywell. The mines are held under the Most Noble the Marquis of Westminster, at a royalty of 20s. per ton; the present workings are free from water, and the present extent is 17 acres, with an additional 30 acres, if required—the present depth of workings is 84 yards from the surface. The mines are situate within a quarter of a mile of the Great Civrt Melitia, where thousands of tons of very rich ore have been raised. The advertiser would not dispose of the above shares was it not for want of cash to sink the new pit. There has been two lodes of fine ore discovered, and he is anxious to sink a new pit, as it is supposed there are rich lodes of ore very near the surface.

For terms and further particulars apply to William Ramsden, mine agent and surveyor, Greenfield, Holywell, Flintshire.

JAMES BOYDELL, LAND, MINE, AND MACHINERY VALUER, AND AGENT,

No. 54, THREADNEEDLE-STREET, LONDON,

HAS TO DISPOSE OF

Several PATENT RIGHTS, FREEHOLD ESTATES, LEASES of FOUNDRY and ENGINEERING WORKS, FREESTONE QUARRY, and COAL and IRONSTONE MINES. SHARES in a well-known SLATE QUARRY, the PART, or the WHOLE, of a well-established GAS WORK, and STEAM-ENGINES and MACHINEY of all descriptions.

TO ENGINEERS, BUILDERS, AND ARCHITECTS. 9

JAMES BOYDELL, 54, THREADNEEDLE-STREET, having been a very large manufacturer of machinery and irregular shaped iron, and having accomplished the rolling of some descriptions of the latter, thought by many to have been impracticable, will be happy to ASSIST any ENGINEERS, SHIPBUILDERS, and ARCHITECTS, in the planning of the details of what IRONWORK they may have occasion for, or bringing to perfection any invention in machinery, as well as procuring such materials for the purpose as they may require.

DEVON.—HENNOCK IRON, STEEL, AND TIN MINING COMPANY.

ON THE COST-BOOK PRINCIPLE.

BANKERS—Devon and Cornwall Bank, Exeter and Newton Abbott.
SOLICITORS—Messrs. Kennaway and Buckingham, Exeter. 10

Capital £9450, in 4500 shares, at £2 2s. each, without further calls or liability.
Deposit £1 1s. per share.

The promoters of this company propose to raise the above capital to work efficiently these very valuable mines of micaceous iron and tin ore, situate in the parish of Hennock, 12 miles west of Exeter, and 2 from Bovey Tracey, on the confines of Dartmoor.

These mines are not a new discovery, but possess the advantage of having had their merits tested to an extent that fully establishes their great capabilities, and warrants the expectation of a large trade at a highly remunerating profit.

Prospectuses and particulars supplied on application (if by letter, post-paid) to Mr. Tripp, Bedford Chambers, and of Mr. T. Sanford, Exeter; Mr. H. Luscombe, Plymouth; Mr. B. S. Stock, Bristol; Mr. C. P. Cameron, Liverpool; Mr. J. Lane, 80, Old Broad-street, Mr. Herron, 33, Clements-lane, and at the office of the *Mining Journal*, No. 26, Fleet-street, London.

TREBARVAH MINES, situate in the parish of PERRANUTHNOE, in the county of CORNWALL.

Consisting of 2048 shares.

CONDUCTED UPON THE COST-BOOK PRINCIPLE. 11

The Trebarvah Mines are situated within two miles of Marazion, and the port from whence the produce will be shipped. They are also contiguous to the Great Wheal Neptune Mine, which formerly yielded monthly profits of from £1500 to £2000, and for many years was one of the most productive mines in Cornwall. The sett is very extensive, being fully a mile in length on the course of the lodes, by half a mile in width, and is held under leases for 21 years, at 1-18th dues.

There are several lodes in this sett, two of which only have been worked upon, running parallel to, and being distant about 70 fathoms from each other—the one to the north possessing the usual indications of rich copper lodes found in this district. Large quantities of tin have been already extracted from its back, and recent discoveries justify the conclusion that much more may be obtained at a comparative small outlay. This lode has been intersected at a depth of 22 fathoms from surface by an adit level driven in from the cliff, and extending about 80 fathoms on its course. A shaft has been sunk from surface 10 fathoms below this level, and a level driven east on the course of the lode to meet a winze sunk 17 fathoms below the adit; 30 fathoms east of the said shaft. In the course of these operations the lode from the adit level downwards increased in size and productiveness, and the quality of the ore improved.

The south lode is large and has yielded blende, mundic, and copper ore, the latter, according to the best mining authorities, will be found to improve both in quantity and quality, a few fathoms only below the present workings, and at a shallower depth west of the present ends, from the ground undergoing an entire change (just previously to the works being suspended), the price for driving having been reduced from 7l. 10s. to 2l. 10s. per fathom, which is, from analogy in the district, highly indicative of the productiveness of the vein.

These lodes, as well as others traversing the sett, are intersected by three known slides and a cross-course, at intervals of from 33 to 60 fms.; the beneficial influence of which on mineral deposits is fully established by experience.

Up to August last year the prosecution of the works had incurred an outlay of about 10,000l.; when, notwithstanding that the returns of mineral were fast increasing, and nearly covered the current expenses of the undertaking, it was determined by the holders who had paid up the calls made upon their respective shares, not to continue working any longer for the benefit of several shareholders who were defaulters to the extent of 1800l. and who would not contribute their proportion of the cost towards bringing the mine into paying condition.

It is now arranged to resume operations with efficient machinery, and under a practical management possessing the advantage of experience derived from the actual working of the mine. Upon a careful calculation, it is estimated that a 30-inch cylinder steam-engine will enable the workings to be carried down to a depth of 80 fms. below the adit level; and it is ascertained that copper ores can be raised at the low tribute of 8s. in the 1l. as soon as the engine-shaft shall have been sunk to the 20 fm. level.

The capital for these purposes is proposed to be raised by the disposal of 1024 shares at 3l. per share to be paid by instalments as follows:—

£1 per share on the 15th August 1849.
10s. ditto ditto 15th October 1849.
10s. ditto ditto 15th December 1849.
10s. ditto ditto 15th February 1850.
10s. ditto ditto 15th April 1850.

upon payment of which the holders will participate in the advantages of the association in the same proportion as the original proprietors.

Applications for shares to be made to the secretary, at the offices of the company, No. 2, New Broad-street, and also to Mr. Tredinnick's mining offices, Three King-court, Lombard-street, of whom further particulars can be obtained.

MANCHESTER CORPORATION WATER-WORKS.—TO BRASS AND IRONFOUNDERS, MACHINE MAKERS, &c.—The Mayor, Aldermen, and Burgesses of the Borough of Manchester, are prepared to RECEIVE TENDERS for the SUPPLY of a considerable number of STREET COCKS, FIRE COCKS or HYDRANTS, and AIR VALVES, in connection with the supply of the borough with water.—Specifications may be obtained at the office of Mr. J. F. Bateman, civil engineer, 46, Brown-street, Manchester.

The tenders, endorsed "Tenders for Street Cocks," must be addressed to, or left with, Mr. Joseph Heron, Town Clerk, Manchester, on or before the 1st day of Sept. next.

By order, JOSEPH HERON, Town Clerk. 12

Town Hall, Manchester, July 27, 1849.

TO CONTRACTORS AND MINERS.—CONTRACT FOR WORKS.—TO BE LET, the EXECUTION of about ONE MILE of TRAMWAY, near ULVERSTON.—The works, in addition to considerable rock cutting, will include 400 yards of heading, 5 feet by 7 feet 6 inches, to be driven through limestone.

For particulars apply at No. 17, Great George-street, Westminster, or at the Railway Office, Barrow.—July 30, 1849. 13

VALUABLE INVESTMENT.—WANTED, a GENTLEMAN, with from £1500 to £2000, to JOIN in PARTNERSHIP to CARRY out a BUSINESS to be worked under the protection of a PATENT. The trade immense and the consumption unceasing, and will, without doubt, pay from 100 to 200 per cent. clear profit.—Address "A. B.," care of J. Berry, Esq., No. 4, Great Ryder-street, St. James's, when an appointment for a personal interview only will be made. 14

IRON ORE.—FURNESS, LANCASHIRE—TO MINERS AND OTHERS.—LEASES of IRON ORE, in this district, will be GRANTED to PARTIES with CAPITAL, wishing to undertake the necessary trials.—For further particulars apply to J. Cranke, Esq., Ulverston.—The Furness Railway connects the mineral district with Barrow Harbour, where there is excellent accommodation for shipping the ore with certainty and dispatch, and at a moderate cost. 15

GLASS TRADE.—WANTED, a PARTNER, in England, to SECURE a PATENT RIGHT for NOTABLE IMPROVEMENTS in the MAKING of GLASS.—Apply (post-paid) to Mr. Eschrech, Philippeville, Belgium. 16

SLATE QUARRY.—TO BE SOLD, a FEW SHARES in a first-rate SLATE QUARRY in WALES, in full work, and making ample returns. Address "R. V. V.," at the office of the *Mining Journal*, 26, Fleet-street, London. 17

STEAM-ENGINE FOR SALE.—TO BE SOLD, BY PRIVATE CONTRACT, an 85-inch cylinder STEAM-ENGINE, 10-feet stroke, equal beam.—Application to be made to Messrs. Hocking and Loam, engineers, Redruth. 18

MINING PROPERTY.—Mr. JAMES HERRON, MINE AGENT, 33, CLEMENTS-LANE, LOMBARD-STREET, has received instructions to DISPOSE of SHARES in FIRST CLASS MINES, paying regular dividends, and yielding to the purchaser from 17½ to 25 per cent. upon his outlay. He is also in a position to transact business in the following—viz.: East Wheal Rose, Great Devon Consols, West Seton, South Wheal Frances, Treviskey, South Tolgus, Trelawny, Bedfords, Mary Ann, Trethellan, Condurrow, St. John del Rey, Guadalcanal, Linares, and Santiago Mines. 19

MESSRS. JOHN T. TEAGUE & CO., MINE SHAREBROKERS, 4, KING-STREET, TRURO, CORNWALL, have BUSINESS to do in the following MINES—viz.: North Pool, South Basset, South Frances, South Tolgus, Treviskey and Barrier, East Wheal Rose, South Caradon, East Tamar Consols, South Tamar, Caradon Wheal Hooper, Kingsett and Bedford, Trehane, Wheal Oak, Wheal Rose, Guadalcanal, &c. 20

MR. HENRY VATCHER, MINING AND RAILWAY SHAREBROKER, EXETER. 21

Competent and experienced AGENTS provided to INSPECT MINES, at the shortest notice.

MR. EVAN HOPKINS, C.E., F.G.S., CONSULTING ENGINEER AND INSPECTOR OF MINES,

May be CONSULTED DAILY (by letters) on all subjects connected with MINING PROPERTY, both Home and Foreign. 22

BARRINGTON-ROAD, BRIXTON.

MR. C. S. RICHARDSON, CIVIL ENGINEER, LAND AND MINING SURVEYOR, 23

No. 15, OLD BROAD-STREET, CITY.

MR. GEORGE BATE, JUN., CIVIL ENGINEER AND SURVEYOR, *WOLVERHAMPTON.* 24

Offices in Queen-street, corner of Piper's-row.

N.B.—UNDERGROUND MINING SURVEYS accurately executed.

MR. JAMES STRIDE, MINING AGENT, AND DEALER IN SHARES, 25

27, *SPRING-GARDENS, LONDON.*

JAMES LANE, MINING SHARE DEALER, 26

80, *OLD BROAD-STREET, LONDON.*

AUSTRALIAN MINING COMPANY.—The board of directors hereby give Notice, that they have made a CALL of ONE POUND per share on the registered shares in the company, to be PAID on or before the 21st day of August, 1849, to the company's bankers, Messrs. Masterman, Peters, and Co., Nicholas-lane, Lombard-street, London. Interest, at the rate of 5 per cent. per annum, will be charged on all calls not paid on or before the 21st day of August. The call letter must be presented at the bankers' at the time of payment.

N.B.—The transfer books of the company will be closed from Saturday, the 4th of August, until Thursday, the 6th of September. By order of the board,

(Signed) J. A. JOSEPH, Secretary. 27

1, Adelaide-place, London-bridge, July 31, 1849.

BOLANOS MINING COMPANY.—NOTICE TO SCRIP SHAREHOLDERS.—The resolutions for the creation of Preferential Shares have been unanimously adopted and confirmed at the special general court held this day.

The holders of Scrip Shares being equally entitled with the registered proprietors to the preference of such shares, in the proportion of one for each share now held by them, this means is adopted of notifying to them that the FIRST INSTALMENT of ONE POUND per share will be due and PAYABLE on Monday, the 6th inst., after which date the shares not taken by the shareholders will be allotted among such other parties as may have made application for them. 28

2, Duke-street, Adelphi, August 1, 1849.

CAMERON'S COALBROOK STEAM COAL & SWANSEA AND LOUGHOR RAILWAY COMPANY.—*Registered and Incorporated.*

Notice is hereby given, that the ANNUAL GENERAL MEETING of the registered proprietors of shares in this corporation, which was held at the company's offices, No. 2, Moorgate-street, London, on Tuesday, the 31st day of July inst., at One o'clock in the afternoon, for the purpose of receiving the directors' reports, and for the transaction of other business, as expressed in the Deed of Settlement and Act of Parliament incorporating the company, was ADJOURNED until Thursday, the 16th day of August inst., at the company's offices here, at One o'clock in the afternoon precisely.

And Notice is hereby further given, that such adjourned meeting will be held at such time and place accordingly. By order of the board of directors,

A. C. HOWDEN, Secretary. 29

Company's Offices, 2, Moorgate-street, London, August 1, 1849.

DERWENT MINES OFFICE, No. 34, Dowgate-hill.—Notice is hereby given, that the directors of the DERWENT MINES COMPANY will be ready on Thursday, the 30th day of August inst., at Twelve o'clock at noon precisely, to RECEIVE, at this office, TENDERS for the 1830 undermentioned SHARES in the said company, the call of 30s. per share on which, due on the 14th July, 1849, has not been paid. No tender can be received for less than the amount of the call so due.

Dated this August 2, 1849. B. O'CONNOR, Secretary. 30

The certificates are numbered respectively—56, 56, 57, 58, 243, 244, 245, 246, 247, 248, 407, 408, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 1001, 1002, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1180, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1189, 1190, 1191, 1192, 1193, 1194, 1195, 1196, 1197, 1198, 1199, 1200, 1345, 1358, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1366, 1367, 1377, 1378, 1379, 1400, 1401, 1402, 1403, 1404, 1405, 1406, 1407, 1408, 1409, 1410, 1411, 1412, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1430.

Transactions of Scientific Bodies.

INSTITUTION OF MECHANICAL ENGINEERS.

A general meeting of members was held at the Philosophical Institution, Birmingham, on the 25th inst. The attendance was considerable.—Mr. CHARLES BEYER, one of the vice-presidents, on taking the chair, read letters from Robert Stephenson, Esq., president of the Institution, expressive of his regret that, in consequence of having to attend a Committee of the House of Lords, he should be unable to preside at the meeting. The proceedings commenced with the reading of a paper,

ON AN IMPROVED LOCOMOTIVE BOILER.

The paper, which was written by Mr. RAMSBOTTOM, of Manchester, commenced with some introductory observations on the fact that the absolute power of a locomotive, or any other description of steam-engine, is directly proportioned to the quantity of steam which the boiler can produce in a given time. The writer then pointed out the direction in which improvements in the construction of boilers had recently been tending—viz., to obtain a greater amount of heating surface, which in some instances had been increased threefold relatively to the size of the blast pipe. The desideratum, therefore, was to get a large amount of heating surface, without increasing the diameter or length of the boiler, or making it oval. To obviate these difficulties, and obtain the required heating surface, Mr. Ramsbottom proposes to construct a copper fire box with an arched roof, the top of which would be nearly as high as the cylindrical part of the boiler. With such a box the whole of the cylindrical part of the boiler could be filled with tubes, as the longitudinal stays could be removed. By such an arrangement 225 tubes, of 2 inches external diameter could be used, the shell being 3 feet 8 inches in diameter, and 10 feet long. The total heating surface of the fire box is 80 feet, and of the tubes 1177 feet. This arrangement involves the necessity of keeping the boiler full of water, and it, therefore, became necessary to provide a separate steam chamber. This consists of a cylinder, 13 feet long and 20 inches diameter, fixed over and parallel to the cylindrical part of the boiler. This tube has a cubic capacity of 28½, and has two communications with the boiler. It is proposed that the water shall occupy about one-fourth of the tube, leaving a clear space of 21 cubic feet for steam.—A brief discussion followed the reading of the paper.—The CHAIRMAN expressed his opinion that the invention promised to be of much value.—Mr. SLATER and Mr. COWPER considered that there would be a tendency to prime in such a boiler.—Mr. MCCONNELL agreed in that opinion; but he thought that it might be obviated by having a more continuous communication between the generator and the cylinder. He remarked that the question whether long or short tubes were most economical had not yet been settled, and the subject was of great importance. He used small tubes, and many of them, from an impression that they were most economical.—After a few additional remarks from several members on the point raised by Mr. McConnell, and in the absence of data as to the practical value of the invention, the discussion terminated with a vote of thanks to Mr. Ramsbottom.

AN IMPROVED PNEUMATIC LIFT,

BY BENJAMIN GIBBONS, ESQ.

The pneumatic lift described in this paper was employed to raise the ore, coal, and limestone, for charging four smelting furnaces at Corbyn's Hall New Furnaces, near Dudley. It described the mode in which furnaces were generally charged, these being by wheeling the ore from a higher ground to the top of the furnaces; by raising the ore by means of an inclined plane; by raising an endless chain of buckets by means of steam power; and by what is termed the water balance. To every one of these modes considerable objections exist. At the Level Iron Works, near Dudley, an instance occurred where a vertical lift had to be introduced in consequence of the furnaces being raised 16 feet in height. There were two furnaces originally 34 feet high, when the materials were wheeled on the level to the top of the furnaces. The furnaces were, however, raised to 50 feet, and the materials had to be raised 16 feet, and a vertical lift was rendered necessary in consequence of the situation being confined by a canal, so as to prevent the adoption of an inclined plane. For this purpose, Mr. Gibbons constructed a pneumatic lift, worked by the pressure of the air from the blowing engine that supplied the blast for the furnaces. This lift consisted of a heavy cast iron cylinder, 4 feet 4 inches diameter inside, closed at the top, and inverted in a well filled with water, in which it was free to slide up and down, like a gasometer. A pipe from the air main was carried down the well, and turned up inside the cylinder; and when the blast was let in, the cylinder was raised by the pressure of the compressed air against the top, that pressure being about 2 lbs. on the square inch. The velocity of the platform, both in rising and falling, was completely under command. The height to which the cylinder was raised was only 5 feet, and the two pulleys supporting the platform were made of different diameters, so as to raise the platform 16 feet. The load raised on the platform was about half a ton. This pneumatic lift had been in work for 19 years, had worked quite satisfactorily during the whole time, and had not required any repairs, except the renewal of the chains, and repair of the rubbing parts. An improvement on this lift was made by Mr. Gibbons, in constructing a lift on a considerably larger scale, at Corbyn's Hall New Furnaces. The height to which the materials have to be raised is 44 feet 6 inches, and the present plan was designed to prevent the risk of an accident occuring through the breaking of a chain. There are four furnaces supplied by this lift, which is fixed between two of them, and the four furnaces are connected on the same level by the staging at the top, on which the barrows of materials are wheeled from the platforms of the lift. In this lift the platform for raising the barrows of materials is fixed on the top of the air cylinder, and it is raised by the pressure of the blast. The air cylinder is 5 feet 6 inches diameter, and 51 feet 6 inches long, and is closed at the top and open at the bottom, and has a throttle valve, 8 inches in diameter, in the centre of the top, which is opened by pressing down a foot lever, fixed upon the platform. The platform consists of planking, carried on timber bearers, which rest upon the edge of the cylinder top, and upon four wrought iron brackets carried out diagonally from the cylinder to steady the platform, and fixed to two hoops passing round the cylinder. Four timber guides are placed at the corners of the platform, and connected at the top to the level stage upon which the barrows of materials are wheeled to the mouth of the furnaces. These guides are faced with iron, as are also the corresponding edges of the platform. Four cast-iron balance weights are suspended outside the guides by chains which pass over pulleys at the top framing, and are attached to the four corners of the platform. These weights are about six and a half tons, and the air cylinder and platform together weigh seven tons, leaving an over balanced weight of half a ton to bring down the cylinder and platform. The air cylinder descends into a well, filled to a certain level with water, and is guided by four rollers. At the bottom of the well a foundation of timber is fixed, to form a stop for the cylinder in descending; and the cylinder is stopped on rising to the top by a wood block fixed on each of the guide posts, stopping the platform at the level of the top stage. A cast-iron pipe, 7 inches in diameter, conveys the compressed air from the air main, and a pipe of the same size carries it into the cylinder, passing down to the bottom of the well, and rising up the centre of the cylinder. A valve regulates the admission of the compressed air into the cylinder when the platform is raised, and also lets out the air from the cylinder when it is lowered. The pressure of the compressed air is 2¼ lbs. on the square inch. The total pressure on the top of the cylinder is 3½ tons, and deducting the unbalanced weight of the cylinder and platform, half a ton, this gives an available lifting power of 3 tons. The average load of materials raised each time is 1½ ton, exclusive of the barrows and men, or about 2 tons gross weight. The lift is raised 16 times per hour, or once in 3¾ minutes, and the total weight of materials raised each day is about 500 tons. The time of raising the platform is from 50 to 70 seconds, in descending from 30 to 50 seconds. In raising the platform the inlet valve is kept full open until the platform arrives at 14 inches from the top, when it catches a lever, which gradually draws up the plug of the inlet valve so far as nearly to close the pipe leading to the air cylinder. This checks the moving power, and causes the velocity of the platform to be so much retarded that it stops dead against the wood blocks without any concussion. The platform is held firmly to these stops by the pressure of the air, and without requiring any catches, as it cannot descend in the least unless the air is allowed to escape from the cylinder, and the supply from the air pipe keeps it full, in case of any breakage taking place. Provision is also made for raising the platform, empty or partially so. The platform is lowered by drawing up the plug of the inlet valve to the top, which shuts off the supply of compressed air, and opens the exit below the plug for the air in the cylinder to escape. This is done by the men on the platform, who, if they please, can prevent any concussion on reaching the bottom. The quantity of air blown into the cylinder each time of raising it is 1128 cubic feet, and the total quantity per day of 24 hours is 360,960 cubic feet, or about 12 tons of air. One 65th part of the total power of the blowing engine is employed in working the hoist. Two and a half horse power is the power that is actually employed in working the lift, this power being constant-acting during the whole day, instead of acting merely at the times when the lift is rising. The actual power required to elevate the lift with the average gross load of 2½ tons, raised 44 feet 6 inches in 70 seconds, is six-horse power. The total consumption of coal slack by the blowing engines is about 13 tons per day of 24 hours, consequently the expense of working the lift is one 65th part of this, or 4 cwts. of coal slack, costing about 5d. per day, or about 100 tons raised for 1d. The total cost of this lift was about 500*l.*; and the cost of an inclined-plane lift, including the engine for working it, would be about double that amount. This lift is, of course, applied most economically and conveniently in the case of blast furnaces, where the compressed air can be obtained very economically, and without any additional machinery; but it is probable that its application may be extended advantageously to several other cases, such as raising railway waggons, or even railway trains, discharging vessels at quays, and various other purposes, and it possesses several advantages which make it deserving of consideration. The low pressure at which it is worked causes great simplicity and economy in the constructing and working, the loss at leaks being reduced, and the joints easier kept in order, and the friction is much reduced, as the cylinder works through a water joint. Where the lift is not required to be always working, but only to be worked at intervals, a further economy could probably be effected by employing a reservoir for the compressed air to accumulate power during the time that the lift is not required to work, and thus reduce the size of the engine requisite for the work. A large capacity of reservoir could be constructed at a moderate expense, on account of the low pressure upon it. At the Corbyn's Hall New Furnaces the reservoir of compressed air contains 5000 cubic feet, at the pressure of the blast 2½ lbs. on the square inch; and it is constructed of four wrought-iron cylinders, from 6 feet to 8 feet diameter, of rivetted plates, of ⅛ to 3-10-inch thick, and the cost of reservoirs of this description would be about 3*l.* per 100 cubic feet.—Mr. BUCKLE bore testimony to the perfect working of the lift in question; it was certainly the best description of lift he had ever seen.—The general opinion of the meeting seemed to be that the invention was an admirable one, and a vote of thanks was unanimously passed to Mr. Gibbons.

ON THE ECONOMY AND EXPANSIVE ACTION OF STEAM, AND A NEW VALVE FOR STEAM-ENGINES.

BY WILLIAM FAIRBAIRN, ESQ., OF MANCHESTER.

The principal part of this paper is devoted to a consideration of the expansive action of steam, especially with reference to the economy which the system has introduced. As an illustration of this economy, it was stated that 10 years ago the average or mean expenditure of coal per indicated horse power was computed at from 8 to 10 lbs. per hour, but now it is under 5 lbs. The paper was a well reasoned exposition of the principle of the expansive action of steam, a history of its progress, and an examination of the various methods of working expansively. The principle of the apparatus described by Mr. Fairbairn is that of the cam, which, by a peculiar arrangement, cuts off the steam at any required part of the stroke. The working of the valves is said to be effected with certainty and simplicity.—Very little discussion ensued upon the paper in question; Mr. N. SMITH, of Dudley, however, remarked that he had never seen a better system. Its simplicity was remarkable, but he had some doubts as to the durability of the apparatus. In the absence of any evidence as to the economy of the invention, the principle was not touched upon. It was suggested that Mr. Fairbairn should be invited to give the institution the practical results of his observations. In the course of the discussion it was suggested that diagrams of the workings of various descriptions of steam-engines in Staffordshire and elsewhere should be collected, and Mr. SMITH, of Dudley, promised to present to the institution a considerable number.

ON THE SYSTEM OF VENTILATION IN THE WALL'S-END COLLIERY.

BY MR. DAVID BURN, OF NEWCASTLE.

This paper, which was a very interesting description of the system of ventilating the extensive Wall's-End Colliery, was accompanied by drawings, showing the various workings and the mode of ventilation. This, of course, we are unable to describe. The total length of passages or air channels in this mine is 31 miles, the air circulating in these passages is 174,758,400 cubic feet per day, and the cost of ventilation is 347*l.* per annum. The mines are remarkable for the quantity of gas emitted, the illuminating power of which is low, but by passing it through carbon its value as an artificial light is equal to common coal gas.—Mr. CLIFFE made a few remarks respecting the quality of the gas emitted, which he had no doubt could be made useful by the mode proposed. He had paid some attention to the question of ventilation, and he was strongly impressed with the opinion that ventilation by means of steam was an admirable system.

This closed the general business of the meeting. It was announced that six new members had been elected, and that amongst other articles presented to the institution, was a marble bust of the late president, presented by Mr. Bramah. After a vote of thanks to the chairman, the meeting separated.—*Birmingham Journal.*

CORNISH STEAM-ENGINES.

[Abstract from Browne's *Cornish Engine Reporter*, from June 20 to July 20, 1849.]

PUMPING-ENGINES.

Number reported	25
Average load per square inch on the piston, in lbs.	12·9
Average number of strokes per minute	5·1
Gallons of water drawn per minute	5296
Average duty of 18 engines—being million lbs. lifted 1 foot high, by the consumption of 1 cwt. of coals	64·6
Actual horse-power employed per minute	952·9
Average consumption of coals per horse-power per hour, in lbs.	4·2

ROTARY-ENGINES—WHIMS.

Number reported	20
Number of kibbles drawn	78,425
Average depth of drawing, in fathoms	135·1
Average number of horse-whim kibbles drawn the average depth, by consuming 1 cwt. of coals	54·9
Average duty of 16 engines, as above	16·4

STAMPS.

Number reported	7
Average number of strokes per minute	12·3
Average duty of 7 engines, as above	39·6
Actual horse-power employed per minute	179·5

PUMPING-ENGINES DOING HIGHEST DUTY.

Par Consols	80-inch single	*Millions*	98·1
Fowey Consols	80-inch single		93·6
Par Consols	72 and 36-inch Sims's combined		87·4
Great Polgooth	80-inch single		85·4
Callington	50-inch single		80·2
Trelawny	50-inch single		80·0

WHIM-ENGINES.

Par Consols	24 & 13-inch Sims's combined	*Millions*	30·4
Fowey Consols	22-inch double		28·2
Fowey Consols	22-inch double		24·1
Callington	22-inch double		18·6

STAMPING-ENGINES.

Great Polgooth	35-inch double	*Millions*	54·5
Tincroft	36-inch double		47·8
Lewis	52 & 28-inch Sims's combined		43·3
Tamar	30-inch single		41·7

Recipes.

[*Continued from the Mining Journal of July 28.*]

CONGREVE, OR LUCIFER MATCHES.—No. 1: Gum arabic, 16 parts; phosphorus, powdered, 9 parts; nitrate of potash, 14 parts; black oxide of manganese, 18 parts; made into a paste with water, and the matches dipped into it.

No. 2: Phosphorus, 4 parts; nitrate of potash, 10 parts; glue, 6 parts; red lead 5 parts; smalt, 2 parts.—The glue is first soaked in cold water, then put into a heated mortar, so as to liquify it; the phosphorus is then added, then the nitre, red lead, and smalt; and the whole mixed into a homogenious mass, the temperature being never allowed to exceed 167° Fah. The matches are dipped into this paste, and then dried. These matches ignite on being rubbed over a rough surface. The phosphorus may be reduced to a state of minute division suitable for use in these preparations, by putting it into a flask or bottle with some spirit; immersing the bottle in hot water until the phosphorus is melted, then briskly agitating it until cold.

MATCHES FOR OBTAINING INSTANTANEOUS LIGHT, BY CHEMICAL ACTION—CHLORATE MATCHES.—No. 1: Chlorate of potash, 2 scruples; white sugar, 12 grains; sulphur, 8 grains; powdered tragacanth, 4 grains; vermillion, 6 grains. Reduce the ingredients separately to powder, mix them together, form them into a paste with water, dip the ends of the matches into the paste, and dry them.—No. 2: Chlorate of potash, 1 drachm; sulphur, 6 grains; white sugar, 6 grains; powdered gum arabic, 5 grains; golden sulphuret of antimony, 5 grains. Mix into a paste with water, and apply as No. 1. These matches ignite on being dipped into a bottle containing asbestos, wetted with a strong oil of vitriol.

CAKE OIL COLOURS.—The colours are first ground with a weak solution of mastic in oil of turpentine; they are then dried, put on a stone heated by a charcoal fire put under it, and ground with a mixture of three parts of spermaceti and one part of poppy oil. The paste is afterwards pressed into a mould, and allowed to harden.

OIL COLOURS IN BOTTLES.—These are prepared in the same way as the cake oil colours, excepting that the spermaceti is omitted, or used in much smaller proportion.

ENGLISH PATENT PROCESS FOR THE MANUFACTURE OF BLACKING—PASTE BLACKING.—Ivory black, 60 lbs.; treacle, 45 lbs.; vinegar, 12 lbs.; oil of vitriol, 12 lbs. Mix for 30 minutes, and add 9 lbs. of India rubber oil.

LIQUID BLACKING.—Ivory black, 60 lbs.; gum arabic, 1 lb., dissolved in vinegar, No. 24 (20 gallons). Mix well, and add gradually, oil of vitriol, 24 lbs. Stir half an hour daily for a month. After 10 days add—gum arabic, 3 lbs.; India rubber oil; India rubber, in small pieces, 18 ozs.; rape oil, 9 lbs. Dissolve in a water bath.

FRENCH PATENT BLACKING.—Treacle, 2000 parts; add gelatine or glue, 60 parts. Mix this with animal charcoal, 5000; add oleic acid, or other oil, 90 parts; any salt of copper, 15 parts; ox-gall, 5 parts; lastly, oil of vitriol, 1000 parts; muriatic acid, 1000 parts. Mix the whole well together.

COMMON BLACKING.—No. 1: Ivory black and treacle, each 12 ozs.; sperm oil, and oil of vitriol, of each 3 ozs.; vinegar, 4 pints. Mix the ivory black, treacle, and vinegar together; then mix the sperm oil and oil of vitriol, separately, and add them to the other mixture.

No. 2: Ivory black, 12 ozs.; treacle, 4 ozs.; sperm oil, 1 oz.; oil of vitriol, 2 ozs.; vinegar, 2 pints; sugar candy, 1 oz. Mix as No. 1.

No. 3: Lamp black, and brown sugar, of each 16 ozs.; sperm oil, 3 ozs.; gum arabic, 4 oz.; oil of vitriol, 3 ozs.; vinegar, 4 pints; water, 2 pints. Dissolve the sugar and gum in the water, add to this the lamp black and oil; and then the vinegar and oil, previously mixed together.—[It is a point of much importance in the manufacture of blacking, that the ivory black be genuine; the ivory black ordinarily sold usually containing a large proportion of powdered wood charcoal. The surest method is to purchase the animal charcoal in a granular state, such as is used by the sugar refiner and the chemist for decolorising purposes, and reduce it to powder.

NEW CEMENT FOR THE TEETH.—Mr. Ostermayer proposes a cement which he considers to approach very nearly to the composition of enamel; it consists of quicklime, 13 parts; anhydrous phosphoric acid, 12 parts. The lime must be finely pulverised and chemically pure. The anhydrous phosphoric acid is obtained by the combustion of phosphorus in dry air. The two substances are to be quickly mixed together, so as to form a powder. This is to be introduced into the cavity of the tooth, previously dried, and to be moistened with a small quantity of water.—*Patent Journal.*

THE ISLAY TONTINE.—While we feel confident that a vast portion of the capital, which from the late want of confidence in joint-stock undertakings, induced by railway mismanagement and railway exposures, is destined shortly to find its way into the inexhaustible channel of mining investment, we do not overlook the claims and advantages held out by speculations of a more general and less material character; among these, life assurance companies occupy a prominent and a respectable position. The life assurance principle, like the mineral wealth in the bowels of the earth, is hardly yet developed; it is destined yet to modify to a vast, to an incalculable extent, the social conditions under which we live. Among the last novel applications and extensions of this principle, we are especially struck with the practical and attractive features of an association, which comes before the public under the auspices of some of the principal bankers and merchants in Scotland, having for its object to combine the certainty and security of a life assurance company with the excitement of the tontine form of lottery. They propose to purchase the princely estates of Islay, now returning 20,000*l.* a year, but capable, under proper cultivation, of furnishing a rent roll of three or four times that amount; and by means of a capital of 12,000 shares of 50*l.* each, to establish a Tontine Life Association on the following principles:—Every shareholder to nominate a life, during whose existence he will be entitled to an annual dividend out of the profits of a general life assurance business, to be engrafted on the basis of the nominee policies and on the guarantee of the landed property—a guarantee, it may be observed, differing materially from that of a mere joint-stock capital, on which it may be that a dividend is too frequently paid out of the premiums of the public assuring their lives upon its security. Every 10 years the accumulated rental is to be divided among the surviving proprietors; but as the nominees fall in, *the shareholders are to receive back their investment*, by virtue of an annual premium on the lives of the whole body of nominees, reserved out of the rental, which will yet leave an ample margin, commencing with a minimum of 10,000*l.* or 12,000*l.* a year, for division among the proprietary. Finally, the last survivor (or survivors, if they choose so to agree among themselves), to inherit the whole estate.

MINES AND COLLIERIES BILL.—Mr. Wyld has a notice of motion standing in the order book of the House of Commons, for next session, for a Bill to enable her Majesty's Secretary of State to appoint inspectors of mines and collieries, and for providing the means of payment for such inspection.

A CERTIFIED CURE OF SCROFULA BY HOLLOWAY'S OINTMENT AND PILLS.—The following certificate from Mr. Alcorn, of Terry's Plains, New South Wales, was forwarded to Professor Holloway by Mr. Pinkey, chemist, of the same place:—"This is to certify that my daughter, aged seven years, was afflicted with scrofula for three years, and that after she had been attended by several respectable practitioners, without success, I was induced to try Holloway's ointment and pills, which remedies, in about three months, completely cured her, and she is now in the best of health. This can be verified by numerous persons in this vicinity, where I have resided for 22 years. (Signed) R. Alcorn, January 1, 1849."—Sold by all druggists and at Professor Holloway's establishment, 244, Strand, London.

New Patents.

SPECIFICATIONS ENROLLED DURING THE PAST WEEK.

Specification of patent granted to Wakefield Pim, of Kingston-upon-Hull, engineer and boiler-maker, for certain improvements in propelling ships or vessels. These improvements consist in having a screw or other propeller sunk into a recess or opening near to the bows of the vessel, which is to be connected either by the same shaft, or by the intervention of gearing, with the propeller, placed in the dead wood of the vessel near stern.

Claim.—The application of two propellers used in conjunction, the one placed near to the bows, and the other near the stern of the vessel.

LIST OF PATENTS GRANTED DURING THE PAST WEEK.

W. Geeves, Battle Bridge, Middlesex, saw-mill proprietor, for improvements in the manufacture of boxes for matches and other purposes.

J. E. D. Rodgers, High-street, Pimlico, professor of chemistry, for improvements in the manufacture of white lead.

D. Harcourt, Birmingham, machinist, for improvements in vices, and in the manufacture of hinges, and also in apparatus for dressing and finishing articles made of metal.

A. Yule, Dundee, master mariner, and J. Chanter, gentleman, of Lloyd's, London, for improvements in the preparation of materials for coating ships and other vessels.

R. K. Day, Hatford, Essex, hydro-fuse manufacturer, for improvements in the manufacture of emery paper, emery cloth, and other scouring fabrics.

G. F. Harrington, Portsmouth, dentist, for improvements in the manufacture of artificial teeth, and the beds and palates for teeth.

F. J. De Cavallion, Paris, chemist, for certain improvements in obtaining carbonated hydrogen gas, and in applying the products resulting therefrom to various purposes.

E. A. D. Boucher, Rue des Vinaigriers, Paris, metal merchant, for certain improvements in the manufacture of cards.

J. A. Drieu, Manchester, machinist, for certain improvements in the manufacture of wearing apparel, and in the machinery or apparatus connected therewith.

Benjamin Thompson, Newcastle-upon-Tyne, civil engineer, for improvements in the manufacture of iron.

T. Potts, Birmingham, manufacturer, for improvements in apparatus used with curtains, blinds, maps, and plans.

J. Shaw, Glossop, Derby, musical instrument-maker, for improvements in air-guns.

A. Roehn, of Paris, for improvements in making roads and ways, and in covering the floors of court yards, buildings, and other similar places. (Being a communication.)

J. Murdock, of Staple's Inn, mechanical draughtsman, for certain improvements in converting sea water into fresh, and in ventilating ships and other vessels; applicable also to the evaporation of liquids, and to the concentration and crystallisation of syrups and saline solutions. (Being a communication.)

J. Parkinson, Bury, Lancaster, brass founder, for improvements in machinery or apparatus for measuring and registering the flow of liquids.

B. Aingworth, Birmingham, button-maker, for improvements in ornamenting iron and other metals for use in the manufacturing of gun-barrels, and all other articles to which the same ornamental metals may be applied.

D. C. Knab, Leicester-place, civil engineer, for an improved apparatus for distilling fatty and oily matters.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

G. Price, Birmingham, stove.
Sabina de Canlier, Coleman-street, City, "the Ottoman cradle."
Miller and Co., 376, Oxford-street, bedside or other table.
R. W. Wright, 39, Devonshire-street, compound signet and keeper ring.
G. West, Riccarton, Linlithgow, tile machine.—*Mechanics' Magazine.*

The Railway Traveller's Magazine for August. London: Maxwell and Co., Nicholas-lane.

This little volume is highly calculated to amuse the traveller during the hours of a railway journey, and equally recreative in the drawing-room or family circle. The present is the first number published, and as the price is moderate, we think the style will render the publication a favourite. It commences with a laughable and lively tale of a "Man of Mistakes," but the chief feature in the present number is an excellent description of the various watering places in England, forming an historical epitome of each, the nature of the waters, climate, &c. In the introduction, it is stated that the space thus occupied in this will be filled in future numbers with matter of a more entertaining, though, perhaps, scarcely more useful character.

ELECTRIC TELEGRAPH AT THE POST-OFFICE.—The telegraph company have laid down pipes and wires from the chief station in Lothbury to the General Post-Office, St. Martin's le Grand, where an office will be opened next week to the public, for the purpose of affording greater facility to those residing more westward to send off dispatches by telegraph. The postmaster general has long contemplated this arrangement for receiving the earliest of the arrivals and departure of the mails at Southampton, Liverpool, Falmouth, &c., and the information of accidents, robberies, &c. In consequence of the increase of business in transmitting intelligence by electric telegraph, and the great complaints which have been made by city merchants and the press on the enormous charges which are made by the company in comparison with the United States, it is intended to make a great alteration in the scale, so as to render this means of communication more available to all parties.

RAILWAY CALLS.—The amount falling due during the month of August is 1,124,346*l.*—for the corresponding month of last year it was 3,122,773*l.* The total calls for the eight months of the present year have reached 15,758,980*l.*, against 25,753,019*l.* in the corresponding period of 1848.

RAILWAY BAGATELLES.—The sum of 140,000*l.* has just been expended on a new station at Euston-square; 243,096*l.* on the bridge over the Tyne, at Newcastle; 126,960*l.* on the bridge over the Tweed, at Berwick; and in the Eastern Counties *exposé*, the stations Cambridge, Ely, Peterborough, figure respectively in the sums of 80,555*l.*, 90,423*l.*, and 93,234*l.*! But those are bagatelles compared with the expenditure on the bridge over the Menai, at Bangor, which the Chester and Holyhead directors have admitted will cost 600,000*l.*; some people believe it will exceed 750,000*l.*, although Mr. Stephenson's estimate was only 250,000*l.*! Costly as that bridge is, it will be far exceeded by the projected Cornish railway bridge over the Tamar, at Saltash, where the centre pier is to be sunk 80 ft. deep below the water's surface at low water spring tides; and as the Government stipulated that the bridge should be carried 100 ft. above the high water surface, makes a total height of upwards of 180 ft., and thereby making the works much more extensive than those at Britannia-bridge. Many persons doubt that Mr. Brunel will complete the Saltash bridge for less than 1,000,000*l.*! The whole population of Cornwall, including the Scilly islands, was, according to the last census, only 341,279.

THE PANAMA RAILWAY.—A pamphlet has just been issued by this company, whose list of directors comprises several of the leading merchants of New York, giving an explicit detail of the present views and prospects of the company. The capital is fixed at the moderate sum of $1,000,000, with liberty to increase to $5,000,000; and the contemplated mode of procedure seems to be marked by considerable prudence. The grant by the Republic of New Granada provides that the company shall enjoy an exclusive privilege for 49 years, subject to the right of redemption by the republic at the end of 20 years on payment of $5,000,000, at the end of 30 years on payment of $4,000,000, and at the end of 40 years on payment of $2,000,000. This privilege is to date from the completion of the road, for which eight years are allowed, and it is accompanied by a concession of exclusive harbour rights at the ports on each side, and also of the necessary land throughout the line, besides 300,000 acres in perpetuity, for the purpose of colonization. The company are also to be allowed to import iron and whatever may be necessary for the construction of the road free of duty, including all articles of provision and clothing for the workmen, and they may call upon the Government to furnish them the assistance of three companies of sappers. The only obligation imposed as to the character of the road is that it shall be capable of transporting passengers and merchandise from one ocean to the other within the space of 12 hours.—*Times.*

BIRCHGROVE COLLIERY.—We are glad to find that this colliery is now in full operation, and within the past fortnight considerable quantities of coal have been conveyed along the railroad, laid by the company on the Swansea Valley line, to the shipping place at Foxhole. Report speaks favourably of the quality of the coal for the patent fuel, as well as other purposes. We are sincerely glad that these works hold out the prospect of affording additional employment in the neighbourhood.—*Swansea Herald.*

COAL MARKET, LONDON.

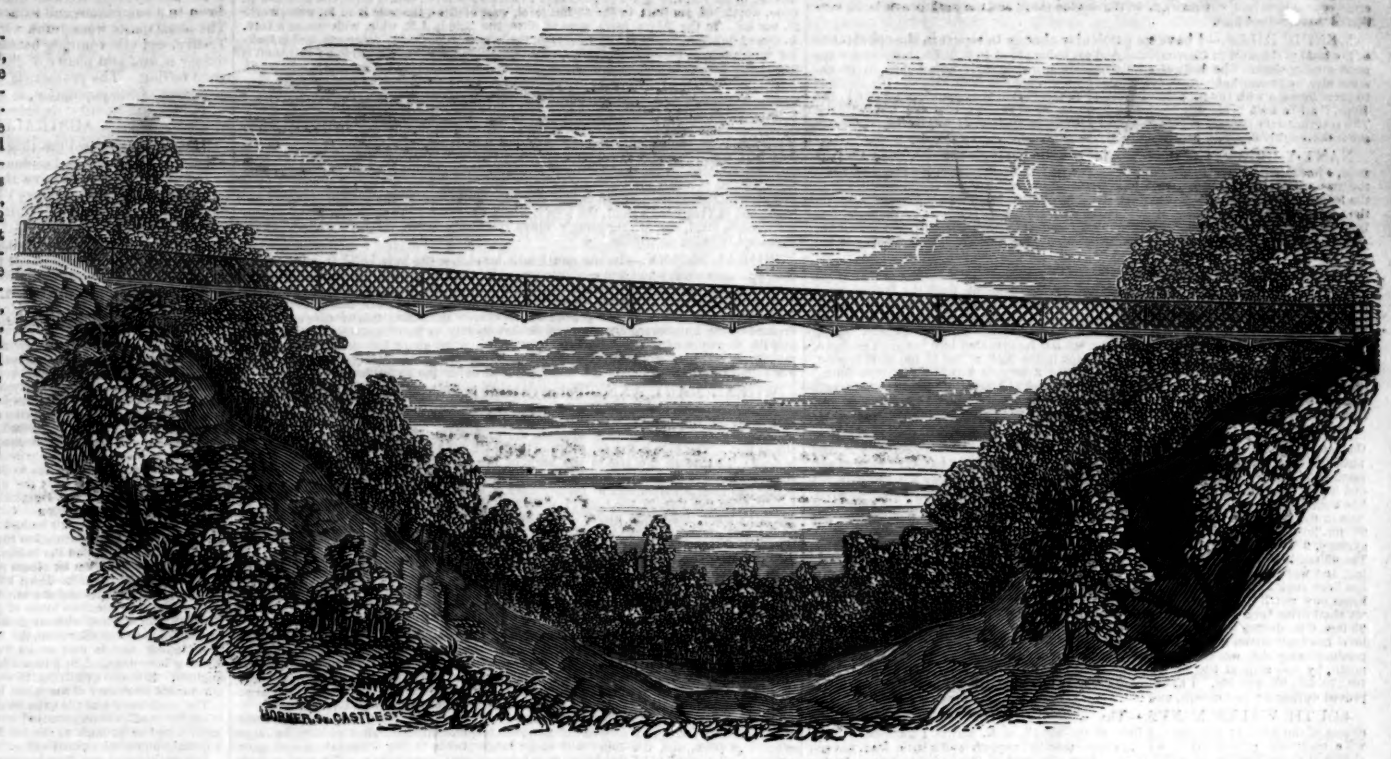
PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Bate's West Hartley 14—Buddle's West Hartley 15—Carr's Hartley 15—East Adair's Main 12 6—Holywell Main 15—North Percy Hartley 14—Ord's Redheugh 13 3—Ravensworth's West Hartley 14—Tanfield Moor 13 6—Tanfield Moor Butes 12 6—Walker Primrose 12 6—West Wylam 14—Wylam 14—Hartley 14 6—Sidney's Hartley 15—Lambton Primrose 16 3—Wall's End Benaham 15—Gibson 15—Hedley 15 6—Riddell 15 3—Belmont 16 6—Braddyll's 16 9—Hetton 17 3—Haswell 17 6—Hutton 15 9—Jonassohns 15—Lombton 16 9—Lumley 15 6—Morrison 15 6—Russell's Hetton 16 9—Stewart's 17 to 17 3—Whitwell 15 9—Caradoc 16 3—Hartlepool 17 3—Heugh Hall 16—Heselden 15 6—South Kelloe 16 3—West Hetton 16—Whitworth 13 6—Cowndon Tees 15—Clavering Tees 14 6—Denison 15—Richardson Tees 14 6—South Durham 15 6—Tees 17 3.—Ships at market, 98; sold, 74.

WEDNESDAY.—Bate's West Hartley 15—Buddle's West Hartley 15—East Adair's Main 12 6—Tanfield Moor 13—Tanfield Moor Butes 12 6—Walker Primrose 12 6—West Wylam 14 6—Wylam 14 6—Lambton Primrose 16 3—Derwentwater Hartley 15—Hartley 14 6—Sidney's Hartley 15—Whitworth Coke 19—Wall's End Gosforth 15 9—Hedley 15 6—Belmont 16 9—Braddyll's 16 9—Hetton 17 3—Haswell 17 6—Lambton 17—Sewart's 17 3—Whitwell 16—Kelloe 16 6—South Hartlepool 16 3—Thornley 16 3—Whitworth 13 6—Adelaide Tees 16 6—Cowndon Tees 15 3—Denison 15—South Durham 15 6—Tees 17 3—West Pease 13 9—Ships at market, 48; sold, 37.

FRIDAY.—Buddle's West Hartley 15—Carr's Hartley 14 9—Chester Main 14 6—Adair's Main 12 9—Hasting's Hartley 15—Holywell Main 15—New Tanfield 12 6—Old Tanfield 12 6—Ord's Redheugh 13—Original Tanfield 12—Ravensworth's West Hartley 14—Tanfield Moor 13—Tanfield Moor Bute's 12 6—Townley 14—Walker's Primrose 12 9—West Wylam 14 3—West Hartley 15.—Wall's End Acorn Close 15 9—Brown's 14 6—Bewicke and Co. 15 9—Gosforth 15 9—Gibson 15 3—Hilda 15 3—Hedley 15 6—Hotspur 15 3—Killingworth 15 6—Northumberland 15 3—Percy 15—Riddell's 15 6—Walker 15 3—Wharncliffe 15 9—Eden Main 16 6—Lambton Primrose 16 6—Belmont 16 9—Braddyll 16 9—Hetton 17 3—Haswell 17 3—Jonassohn's 15 3—Lambton 17—Lumley 15 6—Russell's Hetton 17—Stewart's 17 3—Whitwell 15 9—Caradoc 16 3—Heugh Hall 16—West Hetton 16—Whitworth 13 9—Adelaide Tees 16 6—Clavering Tees 14 6—Denison 15 6—Richardson's Tees 14 6—Seymour Tees 15 9—South Durham 15 9—St. Helen's Tees 14 9 Tees 17 3—West Cornforth 15 6—West Pease 13 6—Derwentwater Hartley 15—Flockton Coke 15—Hartley 14 6.—Ships at market, 149; sold, 154.

THE NOVEL SUSPENSION BRIDGE AT CHESTER.



The above interesting structure was designed and executed by Messrs. M'Kean, Perkes, and Co., of Liverpool, to whom we are indebted for an explanation of its construction, as the means by which it is suspended are so completely hidden from the public view, that the casual observer would be at a loss to know how it really was supported. It is 150 feet between the bearings or points of suspension. The platform, which is 7 feet wide, is supported on 12 round iron chain rods, in links of 15 feet each, with very secure joints placed alternately, and running the whole length of the same. These chain rods are secured together by means of transversed flat bars, placed at intervals of about six feet apart, upon which the timber platform rests, and is secured to the same by means of T headed bolts and nuts running through the whole and screwed firmly together underneath. The chains are made perfectly fast at one end to a huge stone pier, built in the embankment. The centre of the pier at the other end of the bridge is formed into a large pit, upon the top of which is secured a very strong turn barrel, around which the whole of the chains take one wind and descend into the pit, and are secured to a strong cast-iron plate suspended near the bottom, at a depth of 30 feet, upon which is built a heavy mass of masonry, forming a weight which completely counterbalances the whole, thereby providing for every degree of deflection, contraction, and expansion. It is also further secured by very strong back stays at each end of the bridge, running a considerable distance inland at a great depth under ground, and firmly bolted to heavy blocks of hard oak, thereby having a resisting pressure of many hundred tons of earth work, independent of the massive stone piers upon which it rests. It is erected on the estate of Earl Howe, close to the magnificent Grosvenor Bridge, over the River Dee. The design and construction have been left solely to Messrs. M'Kean, Perkes, and Co., and they reflect great credit upon them in every respect, as it is a most unique design, and the first that has ever been constructed upon this principle. Judging from the low price at which it has been erected, we presume it will not be the last, and we congratulate our friends upon this fresh addition to their well-earned merits, which cannot fail to produce its due reward.—*Liverpool Mercury.*

FRANKLIN COXWORTHY'S DISCOVERIES IN NATURAL PHILOSOPHY.

There must be a beginning to all things, whether the period of their existence be of the shortest or of the most extended term. To deviate from an accustomed set of opinions, and propose others in lieu of them, is frequently equivalent to beginning anew, with what has been deemed an established system; and, strange as it may appear, it is nevertheless unquestionably true, that there is more difficulty in correcting pre-existing errors in the physical sciences, in which demonstrable experiments and concurrent facts are duly received in evidence, than in winning over, to a new hypothesis, in anything purely speculative, those who have adhered to an older opinion of a nature diametrically opposed. Hence it is that, having laboured to the same end, year after year, under the most discouraging circumstances, Franklin Coxworthy is only *now beginning* to obtain the attention of the scientific communities to discoveries which will go very far to subvert pre-existing theories respecting electricity; and these form only a part of his negations of the previously affirmative *dicta* of men highly honoured in the archives of science. Satisfied by patient examination of the correctness of many of his conclusions, and unable positively to controvert any of them, we shall avail ourselves of the advantage we possess of frequent personal communications with him, and present to our readers, in possibly a more perfect form than they may be elsewhere produced, the salient points of Franklin Coxworthy's discoveries, with their immediate application to practical purposes.

It is not at all improbable that, having thus far perused this introductory paper, our readers may ejaculate "Who is Franklin Coxworthy?" and, as we wish to be placed, as soon as we can, on an intimate footing with those we have the pleasure to address, we will endeavour to propitiate their friendly feelings by at once gratifying their presumed, and not unreasonable, curiosity, although we shall thereby occupy the entire space allocated to us for our own lucubrations this week, and have, consequently, to defer, until the next, what is certainly more prominent in our own thoughts.

Franklin Coxworthy is an energetic man, somewhat under the medium stature, with regular features, approximating to the Grecian *contour*, an active frame, and a healthy temperament. Full of his mission, he dilates rapidly on any object connected with it, and enjoys the mistakes of an opponent, or the recollection of having anticipated what another may announce as a novelty, with as much glee as a school-boy does the successful ascent of a kite, or the unexpected finding of a bird's-nest. He cannot have attained his 45th year; yet the bushy eyebrow, "where thought reclines," might lead us to suppose him older. A native of Devonport, he received a cursory education chiefly in France, at the seminaries of Nantz and St. Malo. Soon after leaving school, and without any further definite direction of his studies, he received the appointment of a clerk in the Ordnance Department, in which official employment he has continued upwards of 20 years. Almost simultaneously with his entering upon its duties, he commenced the study of chemistry, *en amateur*, in the chemical class of the London Mechanics' Institute, Southampton-buildings. This ultimately led to the development of his discoveries, then in an incipient state, and chiefly with reference to the formation of snow and modes of ventilation, in the *Mechanics' Magazine* of 1844. He had, however, about 12 years previously, written on "Spontaneous Combustion" in the *London Journal of Arts*. The subject of the electrical condition of the earth and atmosphere began to occupy his attention immediately after the publication of his papers "On the Formation of Snow, &c.;" and the results, comprising, in our humble opinion, discoveries of an extraordinary and most important nature, were partially communicated to the *Chemist* in 1847, and are now in course of completion in the *Chemical Times*, which succeeded the other publication. Such, then, is a brief pen and ink outline of Franklin Coxworthy, and his labours in natural philosophy. In our next, we shall commence our references to his discoveries in detail, with the very interesting *rationale* which accompanied their progress.—S: *Cheltenham Journal.*—[Recognising the writer, by certain indices of style, in conjunction with the initial, we purpose quoting what promises to be an interesting series of articles from the columns of our provincial contemporary, consecutively as they appear, with the view of stimulating the opinions of our own readers and contributors.—Ed. *M. J.*]

Improved Iron Window-Shutters.—Among the many mechanical, and other improvements, which tend to domestic comfort as well as facilitate our business operations, we may notice Messrs. Clark and Co.'s patent convex revolving shutters for shop-fronts, windows, doorways, &c. The general make of revolving iron shutters, or those which wind up on a roller similar to a common blind, are composed of flat laths of iron, united by knuckle or butt hinges; but in these patent convex shutters the lath is rolled convex on the outer side, forming in section a segment of a circle, with a short return edge at right angles, effectually preventing the insertion of a chisel, or other steel tool, for the purpose of forcing them; and they are jointed together by a new form of hinge, which causes them to lay close on the rollers, and occupy the smallest possible quantity of room. They can be applied above or below the window, so as to be raised or let down in closing, and can be fixed with equal effect either horizontally or vertically; the latter is most applicable to bow windows. In their prospectus, the patentees state that a flat lath, and a patent convex lath, of corresponding length, breadth, and thickness, cut from the same piece of iron, were supported on blocks, and a 28 lbs. weight suspended from the centre; the deflection in the flat lath was 1½ in., and that in the convex one ⅛th of an inch, showing the latter to be 12 times as strong as the former. For goldsmiths, jewellers, chemists, glass warehouses, and other trades having valuables exposed, these shutters are a great desideratum. In case of a crowd, the window can be closed in two minutes from the inside, and in cases of fire, by preventing a current of air, and being proof against destruction, the flames cannot make their way to the next floor windows—a common rapid means of its spreading. The winding apparatus is of the most simple construction, and while it facilitates the easy and rapid movement of the shutters, is not liable to get out of repair.

Mining Correspondence.

[The Commissioners of Inland Revenue having notified to us their resolve to charge with advertisement duty all reports having the agents' names affixed, we appealed to them in a memorial, setting forth that we, or the respective companies, derived no advantage therefrom—the only object sought, or obtained, being that of affording to the mine adventurer and public the greatest guarantee we could for the truthful and *bonâ fide* nature of the statements periodically set forth, by authenticating them, and thus fixing a responsibility on the writer. The Commissioners have replied, that "the reports, with names attached, are advertisements, and that duty will be charged thereon." We have no alternative but submitting to their dictum. How far the Commissioners are correct in the view they take, our readers can judge as well as ourselves;—we can but hope that, on reflection, they will see the error into which they have fallen, and rescind the orders they have issued. All reports inserted under this head, however, may, as heretofore, be considered as furnished by the regular agents of the company; and we shall carefully guard against the publication or statements which cannot be relied on as correct.]

BRITISH MINES.

ALFRED CONSOLS.—The lode in Field's engine-shaft, sinking under the 50 fm. level, still maintains its size (6 ft. wide), and the branch of copper ore on the south part at this time is from 4 to 6 in. wide, and the capelly part, on the north, is mixed with ore and mundic; the lode in the 50 fm. level, east of the engine-shaft, is 2 ft. wide, with a little copper interspersed through it; the lode in the 50 fm. level west is not looking quite so well for copper ore, being more capelly. In the 40 fm. level, west of the engine-shaft, we have not yet got through the quarry; in the 40 fm. level east we are driving north, to ascertain if there is any more lode to the north of us. Our engine is now going six strokes per minute, to keep the water, and is at half her power with the present pumps.

BARRISTOWN.—The lode in the back of the adit level is producing about 10 cwts. of lead per fm. In the pitches, for 15 fms. west of the slide, in the bottom of the adit level, it is producing the same for about the same distance west of the slide; in the 16 fathom level end east, we have stopped driving on the branch lately discovered, having got into black ground to the north; we are now rising on it; it is 10 in wide, with a branch of lead 2 in. wide, pretty solid, on the foot-wall.

BEDFORD UNITED.—At Wheal Marquis we have met with a hard floor in the engine-shaft, which has retarded our progress. The lode in Burley's winze, in the 90 fm. level, remains without alteration; and in Crewe's winze in this level the lode is producing 3 tons of good ore per fathom; we are driving by the side of the lode in the 90 fm. level east. The lode in the winze in the 80 fm. level is 2½ ft. wide, producing good stones of ore, but not rich. There has been no lode taken down in the 70 fm. level since last report. We weighed, at Morwellham, on Friday last, May ores, 115 tons 7 cwts. 2 qrs.; and sampled June ores, computed 119 tons (21 cwts.)

BRYN-AR-IAN.—We have finished cutting the plat in the 10 fathom level, and commenced driving east by six men; the level is to be carried 6 ft. wide in the lode, which will yield at present 10 cwts. of ore per fm.; but the other part of the lode which we shall leave standing for the present also contains several small branches of ore. We shall not set the level to drive west until a communication is made from the shaft to the winze 8 fms. 4 ft. east of the shaft, and down 5 fms. below the deep adit level. We have begun to cut down the part of the lode which was left standing to the north side of the winze, and find it will produce 8 cwts. of ore per fm.; when this is completed to the present bottom of the winze, we shall commence sinking it again. The stope back over the adit level, east of the shaft, is still yielding 1 ton of ore per fm.; the stope back of this level, east from the winze, is yielding 15 cwts. of ore per fm. The stope back and bottom of the shallow adit level produces 8 cwts. of ore per fm. We did not sample on Saturday, owing to a small breakage of the crusher, but we shall sample 20 tons to-morrow, and by Thursday morning's post the samples shall be sent off. I do not expect you will get the biddings before the 14th inst., as that is about the time allowed.

CALLINGTON.—In sinking Kelly Bray engine-shaft below the 32 fathom level, the lode at present is unproductive. In the 20 fm. level east, on Kelly Bray lode, the lode is 2 ft. wide, producing good stones of copper ore. In the 50 fm. level east, on Kelly Bray lode, the lode is 2½ ft. wide, but poor. In the 70 fm. level east, on Kelly Bray lode, we have an improvement, now producing 2 tons of copper ore per fm. The 90 fm. level west, on Kelly Bray lode, is producing stones of copper ore. At the north mine, the engine-shaft is now down for a 125 fm. level, and the men are now engaged in cutting plat, &c. In the 112 fm level north we are laying open good tribute ground; the 112 fm. level south will produce 6 cwts. of silver-lead ore per fm. The 100 fm. level north is yielding good saving work for silver-lead ore. In the 90 fm. level south no lode has been taken down since last reported on. At the south mine, in the 125 fm. level north, we are laying open ground that will work at a moderate tribute; in the same level south the lode is producing saving work. In the 112 fm. level north we are opening tribute ground; in the same level south the lode is producing good stones of silver-lead ore. Our tribute pitches are looking better than for some time past; on the whole, I am glad to state our prospects are improving.

CARADON UNITED.—The engine shaft is down 3 ft. 3 in. below the 50; in this level we were obliged to cut a plat, in consequence of soft ground and a great quantity of water issuing from the lode, which is about 10 ft. wide, composed of strong gossan, soft spar, prian, soft iron, with mundic and portions of copper ore, and the oxide of copper; and I have every reason to believe this lode will be productive in depth, but think it necessary to sink deeper to get out of the gossan, which I wish you to do as soon as we are prepared for it, which I hope will be about the latter end of August. We are now cutting a plat in the 50; when this is done we shall divide and plank down the shaft, and drive 4 or 5 fms. east and west to drain the lode and release the timber, which is indispensably necessary, and also to allow me to put two men to drive south to cut our first two lodes—the last of these I expect we shall reach in 8 fms. driving. In the 38 we did not see this lode; in the 28 we drove 5 fms. on it, and had some good stones of yellow copper ore. As these south lodes are principally composed of peach, spar, and mundic, I have every reason to think they will prove productive much sooner than Morshead's lode, and, therefore, we ought so see two or three in the 50.

COURT GRANGE.—Capt. Matthew Francis writes by letter, dated Aug. 1, addressed to Henry Von Uster, Esq.—We have finished laying out our work, and letting the bargains in the mines at Pen-y-cefn, East Pen-y-cefn, and Llettyn-hen, being all the mines yet open in the Court Grange sett. At Pen-y-cefn, our first object is to get air into the 30 fm. level; we have, in order to provide this, set a winze to sink from the 16 fm. level, and a rise from the back of the 30 fm. level, so as to form a communication, which we hope to do in two months. We have also set the 30-ft. wheel to drive eastward, which we expect to go into ore ground. The wheel-pit for the 44-ft. level is now excavated to the depth required, and the masons from this time will be employed in building the walls. We hope in about 10 weeks to have the wheel at work. It appears to me that we cannot calculate upon dressing ore before this is accomplished, the present wheel being too heavily laden to attach other work to it. We have marked the site for the machinery at East Pen-y-cefn; the wheel is about 20 ft. diameter, 2 ft. breast, and will have 50 fms. of iron rods attached for pumping; and a small crushing-mill must also be connected to it, for dressing the ore. I hope that this wheel will also be working in about 10 weeks. There is a fall of 48 ft. from this wheel to the 30-ft. wheel, now working at Pen-y-cefn, on which may be erected the necessary machinery for drawing the ore, &c., and doing the other work of the mine. The shaft is sinking in a very large lode, containing a good mixture of ore for a width of from 6 to 7 fms., and probably several feet in addition; but of the exact size of the vein we are yet unable to speak; the nature of the lode is so favourable to the yield of large quantities of ore, that it will be most unusual if the ore now discovered is not connected with a very profitable mine. At Llettyn-hen, the plan of the application of the machinery for this mine is also arranged, and the work laid out upon the surface, and will be steadily carried into execution from this time. I should expect that, if we can get sufficient masons and carpenters, we may get this wheel to work in two months. The shaft in this mine is sinking in ore ground, worth 20*l.* per fm.; this is a very profitable description of ore ground, and the indications here are of a very valuable and lasting property. I would observe, that the moving of such a mass of mining machinery is necessarily attended with heavy cost—in the month now let probably it will amount to something upwards of 200*l.* I do not see that we can suspend any of these extensive works without delaying the period of our profits; but I hope in six months the outlay will be superseded by good monthly balances of profits, and I have every reason, from the appearance of the ore ground, to expect that such will be the result.

CWM ERFIN.—Our 20 fm. level, west of the whim shaft, is yielding about 7*l.* worth of ore per fm. The sink about 15 fms. west of the whim shaft, under the 10 fm. level, is worth about 12*l.* per fm. for the length (12 ft.). The sink east of the whim-shaft (for 12 ft. long) is worth 18*l.* per fm. Since the increase of surface water we are forking at the engine-shaft about 1 fm. daily, and are enabled to crush about one half of the time. We have requested Mr. Evans to sample 12 tons of lead ores and 6 tons of copper ores, tenders to be delivered to you in nine days after date of sampling.

DEVON AND COURTENAY.—The lode in the end, driving west in the 40 fm. level, is 3 ft. wide, producing a great quantity of white iron, some prian, and soft spar, interspersed with spots of ore; the rise in the back of this level is 2 ft. wide, composed of gossan, with some grey and black ore. The rise in the back of the 50 fm. level, on the south lode, continues to yield 1½ ton of ore per fm. I think we shall raise several tons of ore from this stope this month.

DYFNGWM LEAD.—The setting for the month of August is as follows:—Cyfartha Castle: to drive east, at 70*s.* per fm.; a stope at the bottom of the end, at 70*s.* per fm.; and a stope west of the crescent, at 70*s.* Edward's stopes: a bargain for 35*s.* per fm.; in this stope I intend to drive a shallow adit east, where there is a beautiful lode, it will be about 30 fathoms deep into the hill. The 22 fm. level: no bargains set this day, in consequence of both ends being full of stuff, which will be cleared about the end of next week; the shaft is nearly all cut to the 22 fm. level and the bearers fixed. I hope to fix the cistern to-day, and have the water in fork on Monday, when we shall lose no time in drawing the stuff. The 16 fm. level: we have fixed our timbers and secured the stulls—with some little extras, I consider the mine now safe from top to bottom.

EAST TAMAR.—The engine-shaft has been sunk 1 fm. 1 ft. 9 in., and, being now down 10 fms. 2 ft. under the bottom of the 70 fm. level, the shaftmen have been placed to drive; in sinking the last few fms. the lode is much improved. The 80 fm. level is extended 1 fm. from the shaft north; in the end the lode is 3 ft. wide, composed of fluor and horn-spar, with a branch a foot wide, producing saving work; and south it is extended 7 ft. The lode in the end is 2½ ft. wide, composed principally of can, 18 in. of which produces good saving work; the lode in this level is much more promising than it was when we commenced driving upon it in the 70. The 70 fm. level has been driven north 1 fm. 2 ft. 6 in.; the lode is 3½ ft. wide, composed of a hard tight can, containing some stones of lead; the same level south has been extended 4 fms. 1 ft. 3 in.—the lode is 2½ ft. wide, 18 in. of which is good work, and showing a considerable improvement since last setting day. At the north end, in the 60 fm. level, the lode is 18 in. wide, carrying a branch on the eastern side worth 7 cwts. of lead per fm.; at the south end, in this level, the lode is divided by a horse of killas, on each side there is a branch a foot wide, producing saving work. The 11 fm. level (under the deep adit), north of Charlotte's, has been extended 7 fms. 5 ft.; the lode is 3 ft. wide, composed of can and gossan, with lead throughout—good work and likely to improve. The pitches generally are looking as well as for some time past. The following is a statement of the settings for the ensuing month:—The 80 north, 2 fms. stent, four men, at 70*s.* per fm.; the 80 south, 3 fms. stent, four men, 45*s.*; the 70 north, 1 fm. stent, four men, 6*l.*; the 70 south, to rise to the 60, about 2 fms., four men, 20*s.* and 5*s.*; the 60 south, 2 fms. stent, four men, 5*l.* 10*s.*; the 60 north, men employed to hole a winze to the 46, six men, 4*l.*; the 11 north, 4 fms. stent, four men, 35*s.* and 5*s.*; ditto stopes, 6 fms. stent, four men, 20*s.* and 5*s.* Pitches—Back of 70 north, four men, at 11*s.* in 1*l.* for lead: 70 south, four men, 11*s.*; 60 north, twelve men, 10*s.* 6*d.*, 9*s.*, 11*s.* 6*d.*; 60 south, ten men, 9*s.* 6*d.* and 11*s.*; 46 south, four men, 12*s.*; 26 south, four men, 10*s.*; 26 north, four men, 10*s.* 6*d.*; 25 north, six men, 10*s.* and 12*s.* 6*d.*; 11 north, six men, 12*s.* and 10*s.* 6*d.* The shaft has been divided and made complete to the 80 fm. level; and as soon as the men have driven their present stent they will resume sinking.

ESGAIR LLI.—The deep adit to drive east, on the north lode, by six men, 4 fms. stent, or the month at 6*l.* per fm.—drove last month, 3 fms. 2 ft.; the ground is getting rather stronger, with much water coming from the present end: the lode is looking quite as well as last reported, and will yield on an average 6 cwts. of ore per fm. We have now 16 fms. to get under the winze from the shallow level, and are now 21 fms. below it, notwithstanding this level has drained the winze quite dry. The winze below the shallow adit is now down 7 fms. 1 ft. 6 in.—sunk last month, 2 fms. 4 ft. 2 in.; for the last 3 fms. we have been sinking on the south part of the lode for 4 ft. wide, and this part of the lode is looking quite as well as last reported; but, in order to ascertain the width of the lode, I think it most advisable to strip down the remainder of the lode as far north as the footwall, previous to sinking any further. The stopes in the bottom of the deep adit, east of the engine-shaft, is now lying at 2*l.* 5*s.* per fm., and as I consider this to be a fair price for the ground, I think it best not to advance for a day or two; the lode is improved since my last report, and will yield, on an average, 6 cwts. of ore per fm. There is a piece of ground in the deep adit, on the north lode, between the wheel-pit and the cross-cut, 5 or 6 fms. in length, which I have set at 2*l.* 10*s.* per fm.—this, when holed, will very much improve the air in the eastern end. We are getting on with the dressing as well as can be expected, with the aid of machinery.

EXMOOR WHEAL ELIZA.—Since our last we have driven the cross-cut north about 6 ft., where the ground is a little easier; we have intersected several branches, composed of gossan, mundic, and copper, which is a favourable indication of a productive lode; we have driven north, hoping to cut the north part of the caunter lode, but the ground being hard, our progress has been slow; we are hoping daily to cut it.

HEIGNSTON DOWN CONSOLS.—The ground in Bailey's engine-shaft continues hard, consequently our progress is impeded thereby. The lode in Hitchins's shaft is not so large as last reported, although of a kindly description, with a little copper in places. The lode in the 35, east and west of cross-cut, is without important alteration.

HOLMBUSH.—The lode in the 120 fm. level south is 4 ft. wide, composed of quartz and lead, saving work. The lode in the 120 fm. level, east of Hitchins's shaft, on the south part, is much the same as when last reported on. The ground in the 120 fm. level cross-cut south, towards the flap-jack lode, is still favourable, and we are making all the progress that can possibly be made to reach an object. The lode in the 110 fm. level south is 3½ ft. wide, composed of soft quartz, prian, and lead, producing 4 cwts. of lead per fm. The lode in the stopes in the back of the level will produce 3 cwts. of lead per fm. No lode has been taken down in the 100 fm. level south, on the lead lode, since last week, and the level being so filled up with stuff, we were under the necessity of removing the men to the 110 to take up some water, previous to setting some tribute ground next survey day. We have taken down the flap-jack lode in the stopes in the back of the 100 fm. level, and find it to be from 2 to 3 ft. wide, composed of spar, mundic, killas, and copper ore, producing one ton of ore per fm.; the lode still retains its size and regularity, but there is much more killas mixed up with it.

KIRKCUDBRIGHTSHIRE.—The lode in the 62 fm. level, west of Stewart's, is 5 ft. wide, with fine spots of ore through it. The lode in the 50 end east is 1 ft. wide, yielding 4 cwts. of lead per fm.; the lode in the winze over this end is 15 in. wide, with small spots of ore. The lode in Keith's shaft is becoming softer for breaking, but not otherwise improved yet. The lode in the 40 end west is improving, it appears to be through the knot of poor ground, and is beginning to make lead again, worth now 4 cwts. per fm. We have holed the winze in the bottom of this level to the 50 end this week; this end is still looking well, and yielding above one-half ton per fm. We have shipped a cargo of lead ore this week, which was sold at Holywell on Thursday last.

LEWIS.—The lode in the engine-shaft, sinking below the 70 fm. level, is 2½ ft. wide, saving work for tin; the lode in the 70 east is 2½ ft. wide, with some spots of tin; the lode in the 70, east of engine-shaft, on south branch, is worth 5*l.* per fm.; the 70, east of ladder road winze, on south branch, is worth 16*l.* per fathom; the 60 fm. level, west from sump shaft, on south branch, is worth 12*l.* per fm.; the winze which was sinking below the 60, on south branch, is now communicated with the rise at the back of the 70. The lode in the 60 east, on Cock's branch, is small, yielding some occasional stones of tin; the lode in the winze sinking below the 60, on Cock's branch, is worth 26*l.* per fm. In extending this level (60) south from Oak shaft; we have intersected a new lode, 10 in. wide, producing some excellent quality tin stuff. The 50, east of copper ore shaft, on Cock's branch, is worth 5*l.* per fm.; the rise in the back of this level, since my last, is holed in the 40 fm. level. The lode in the 40, east on Cock's branch, is 1 ft. wide, worth 4*l.* per

fm. The 40. west on Cock's branch, is opening moderate tribute ground. All other places are much the same as when last reported.

LAMHEROOE WHEAL MARIA.—There is nothing new to add to the last report. The sinking is continued with all possible vigour, and the exact depth of each shaft is as follows:—Engine, 56 fms. 4 ft.; Davey's, 47 fms. 1 foot. Both the lode and cross-course have been cut through in the engine-shaft, and the work is now being continued through the killas.

MENDIP HILLS.—I have no particular change to report in the appearance of the beds of slagstuff in Charterhouse Valley, being about 16 ft. thick, producing some good quality slags. The beds of stuff which we are at present laying open in Blackmoor also look remarkably well, even better than we expected to find them. We continue to press forward with the necessary erections in this part of the company's property, and hope, if all be well, to see it in operation in about 10 or 12 days from the present date. The reverberatory furnace is completed, and fire lit in the same; we, therefore, hope to see it thoroughly dry, and in a fit state to commence smelting by this day week.

NANT-Y-CRIA.—The shallow adit, to drive west on the new lode, by four men, 4 fms. stent, or the month, at 4*l.* 15s. per fm.—drove last month 3 fms. 5 ft. 7 in.; the ground is getting stronger, with less gossan and more blende in the lode, and I think the lode is looking more kindly than for some time past. We have finished cutting down the new shaft from the surface as low as the deep adit, and, previous to the rods, &c., being erected, we are thinking to put the shaftmen to clear out the deep adit west of the dressing-floors, in order to take up the water, and to see how the lode is looking in the present end.

RHOSWIDDOL AND BACCHEIDDON.—Nant level adit is poor. One party who were at work here, I have removed to the cross-cut, from the Smithy level, into the Augustus's stope. The 10 fm. level has been good for lead till Saturday, but is poor now. The two stopes in the back of the 10 fm. level are yielding good ore; the bottom of the 10 fathom level is better than ever. The 17 fathom level has been driving through poor ground for the last fortnight; but has just entered into the good course of ore in the bottom of the 10 fm. level. The stope in the back of the 17 fm. level is good. Smithy level looks well; the end is in good ore. A bargain will be let to stope behind the end; four men are crossing from the Smithy level to Augustus's stopes; Augustus's stope looks exceedingly well, and the lode is very strong. I send you samples of lead from it to get assayed. We have 15 tons of ore ready to ship.

SOUTH TAMAR.—The shaftmen have been principally employed in clearing the bottom, or 101 fm. level; they are now set to sink the shaft 2 fms., cut tip plat, and put in cistern and bearers, at 40*l.* per bargain. The 101 fm. level has been cleared and secured 23 fms. 5 ft., and the east driven 1 fm. 4 ft. north of the shaft; the lode in the end is 2½ ft. wide, kindly, but not producing much ore; the same level, south of the shaft, has been cleared and widened for 17 fms. 5 ft., and to within 3 fms. of the end. The lode in the end is 2 ft. wide, with a branch of good ore; work about 10 in. wide. The 90 fm. level has been extended south 5 fms. 5 ft. 9 in.; the lode has produced, on an average, 9 cwts. of lead per fm., and in the present end will yield the same quantity. The 80 fm. level has been extended 3 fms. 2 ft. 9 in.; the lode is 3 ft. wide, easy for driving, and worth full 9 cwts. of lead per fm. The winze in the bottom of the 80 fm. level has been sunk 8 fms. 1 ft. 9 in.; the lode is 2 ft. wide, and has produced good rich work, being now worth 10 cwts. per fm.—this winze will be down to the 90 in a few days, when we shall drive back to meet the forthcoming end. The 40 fm. level has been cleared 23 fms. 6 in. during the past month, but we have not yet reached the end. The 30 fm. level has been driven south 4 fms. 3 ft. by the side of the lode, and the cut through it has produced very rich work for silver. The pitches set are as follows:—Back of the 101 north, by four men, at 10s. for lead; 90 south, ten men, 7s. and 10s.; 80 south, 24 men, 10s., 7s. 6d., 9s., and 10s. I have much pleasure in saying that the mine has greatly improved during the past month, and there is every prospect of increasing the returns.

SOUTH WALES MINES.—The Bodcoll deep adit, to drive east on the course of the lode, by four men, 4 fms., or the month, at 4*l.* per fm.; the lode is 18 in. wide, composed principally of slate, gossan, mundic, copper, and a little lead, but not sufficient to put a value on. The Dolwin deep adit, east of the Rhydnant river, on the course of the lode, by two men, 3 fms., or the month, at 2*l.* 15s. per fm.; the lode is 6 ft wide, composed of slate, good gossan, quartz, mundic, copper, and lead, looking kindly.

SOUTH WHEAL TRELAWNY.—The ground in the engine-shaft, sinking below the 30 fm. level, is not so favourable as we have had it during the last month. We have sunk 6 ft. 6 in., cut plat 8 ft. by 10 ft., divided and cased down the shafts, &c., and have had the misfortune of breaking two windbores. The first will do for a standing lift, but the other was bad casting, and we have a new one in its place, so that we have only to regret the loss of time it has occasioned.

TAMAR SILVER-LEAD.—The lode in the engine-shaft is 18 inches wide, composed of flookan and mundic, with some ore. In the 190 end the lode is 2 ft. wide, composed of capel and ore, but not rich. In the 175 end the lode is 2½ feet wide—capel and ore, good saving work. In the 160 end the lode is at present poor. In the 145 end the lode is 3 feet wide, composed of can, mundic and ore, of a coarse quality. In the 135 end the lode is 2 feet wide, very good saving work. Our pitches continue to look well. At North Tamar, in the 80 fm. level the lode is 6 in. wide, composed of can and mundic. In the 70 end south the lode is 18 in. wide, composed of flnor-spar and ore, saving work; in the north end of ditto the lode is 2 ft. wide, producing good stones of ore. We hope to sample on Saturday, the 4th of August, about 95 tons of rich silver-lead ores.

TINCROFT.—At Palmer's shaft, on East Pool lode, sinking below the 90, the lode is 2 ft. wide, with spots of copper ore; the lode in the 90 west is 1½ ft. wide, with occasional stones of ore. In the 80 fm. level west the lode is 4 feet wide, worth 8*l.* per fm. for copper. In the 70 fm. level west no lode has been taken down since last report. In the 36 fm. level, driving west towards Stainsby's shaft, the lode is 1 ft. wide, with spots of ore. In the 24 fm. level west the lode is 15 in. wide, with good stones of ore; the stopes in the back of this level are worth 35*l.* per fm. for copper. At North Tincroft, in the engine shaft sinking below the 100 fm. level, no lode has been taken down since last report. In the 100 fm. level east the lode is 3½ ft. wide, worth 10*l.* per fm. for copper; in the 100 fm. level west the lode is 3 ft. wide, worth 9*l.* per fm. for copper. In the 90 fm. level east the lode is 2½ ft. wide, worth 9*l.* per fm. for tin and copper; the 90 west is worth 10*l.* per fm. for copper. In the 80 fm. level, east of Willoughby's, the lode is 5 ft. wide, worth 10*l.* per fm. for tin. On Highburrow, in the 152 fm. level, east of engine-shaft, the lode is worth 10*l.* per fm. for tin. In the 142 fm. level, east of Martin's east shaft, the lode is worth 12*l.* per fm. for tin; the stopes in the back of this level, east and west of the shaft, are worth 17*l.* per fm. for tin. In the 132 fm. level, east of Martin's east shaft, the lode is worth 18*l.* per fm. for tin; the lode in the west end, same level, is worth 11*l.* per fm. for tin; the stopes in the back of this level, east and west, are worth 18*l.* per fm. for tin. In the 120 fm. level, west of engine shaft, the lode is 4 ft. wide, worth 11*l.* per fm. for tin. In the 110 fm. level, driving east from Cook's Kitchen, the lode is 2½ ft. wide, worth 5*l.* per fm. for tin. On Chapple's lode, in the 100 fm. level, west of Downright shaft, the lode is worth 17*l.* per fm. for copper. The 90 west is worth 25*l.* per fm. for tin and copper. In the 80 west the lode is 3 ft. wide, worth 10*l.* per fm. for tin and copper. At Wheal Providence, the lode in the engine-shaft, sinking below the 33 fm. level, is at present poor.

TREBELL CONSOLS.—This mine is in the parish of Lanivet, in the county of Cornwall, and has length on the line of the lodes about 420 fms.—in the tin department a greater length can be had, if required. This mine, formerly named Beacon, was abandoned about 12 years since; it was worked about three years (it had been worked previous to the last working), during which period several tons of tin of a superior quality was raised. The principal part of the workings were on the top of the hill before named, and were carried on by working two lodes only a few fathoms below surface: the greater part of the workings are filled up, but the lodes are still visible, those already spoken of being 30 fms. distant. The northern lode is from 2 to 3 fms. wide, to be seen about 6 ft. from surface, and composed of capel, granite, gossan, and tin—the stratum is soft decomposed granite. From information, this lode has been wrought on about 5 fms. below surface; the water was drawn from this part by horses. The southern lode is about 5 ft. wide, composed of capel, spar, and granite, and producing tin of superior quality—this lode can be seen 9 ft. below surface. Nearly all the stuff raised from these lodes has been stamped, although the stamps then employed were at a great distance; the carrier's price for carriage to stamps was 9s. per 100 sacks. About 100 fms. east of these lodes, before spoken of, old workings have been opened, which were sunk about 3 fms. below the surface—this does not appear to be either of the former lodes, it being about 20 fms. further south than the southmost before named, and, according to its present direction, will form a junction with it 110 fms. further east; this lode is about 2 ft. wide, composed of spar, capel, granite, and tin. There are at present two men employed in this department, and although not more than 15 ft. below the surface, they can get good wages on the quantity of tin they can raise; and if an adit was brought home, they could make a profit to the adventurers, even at the present depth. About 150 fathoms east of this, and about 130 fathoms north, an adit has been taken up in the former workings, intended to intersect these lodes; it has been carried into the hill by the former adventurers 100 fms., three shafts have been sunk on it; one lode has been intersected, which is about 6 ft. wide, composed of capel and spar, with a small quantity of tin. Some excellent tinstuff was raised by the last adventurers, but the mine soon after was abandoned. The cross-cut south is about 10 fms. south of this lode; it is now intended to drive this cross-cut to intersect the remaining lodes, and, according to the plan which is to form the longitudinal section of the lodes as opened on, there are 30 fms. at most to drive to accomplish this; the depth at the intersection will be about 22 fms., and, by driving west, will quickly increase to 30 fms. deep, the drivage of this cross-cut heretofore has been in killas, which is bordering on the granite—at present the end is in elvan, which is not expected to continue long, its direction being nearly westerly and easterly. This elvan course argues well for the speculation—they are often found to exist in mines, particularly tin mines. I believe an elvan course runs through the Great Polgooth Mine, and nearly parellel with the lodes. I have seen it in St. Austell Consols Mine, which is west of Polgooth and parrellel with Hewas. The driving this cross-cut, to intersect the lodes before named, is an important object, as it is very likely to prove beneficial, particularly as the tin makes shallow where it has been opened on. On the hill before named, and near the north lode, is soft decomposed granite, much like porcelain clay—this is good work for tin, and would well pay for washing, if water was near; and it is my opinion that, if a steam stamps was erected in this part of the sett, the lodes would pay at the present depth—viz., from 6 to 9 ft. below the surface. The stratum in this part of the mine is much like that in Beam Tin Mine, in St. Austell, and Lanet, only in Beam the lodes are not so large. In the northern part of this mine, Lanivet Consols and Tretoil lodes pass through (as may be seen by plan). To work this effectually some other land must be obtained, which may be also seen on the plan. This may not, perhaps, for the present be put in operation, but I have no doubt of its being a set worthy of attention hereafter; this, however, cannot be worked much without a steam-engine, and will, doubtless, be further considered. But, as to the tin department, it does scarcely appear a speculation, only as to driving to intersect the lodes in the cross-cut, which, by the present appearances of the strata, may be expected to range from 3*l.* to 5*l.* per fm. A small outlay will accomplish it, and a steam stamps is very likely to be all that will be afterwards wanted for a long time, and from present view the only outlay that will ever be wanted, as it could pump as well as stamp, if erected on the hill, or any other part of the sett. I might have said, that the lodes of Tretoil and Tregollan were productive lodes—Tretoil lode having realized about 64,000*l.* worth of copper ore; Tregollan lode 30,000*l.*; Wheal Messin lode is Tregollan lode, and also sampled large quantities of ore—the two last mines have good courses of ore at present, although idle.

TREGORDEN.—In cutting into the western side of the 12 fm. level north, 44 fms. from the engine-shaft, and about 5 fms. behind the ends, we have discovered the main part of the lode, which is 15 in. wide—9 in. being richer work than any yet seen in the mine, worth about 15*l.* per fm. A sample of the smalls, having been cleaned on the shovel, has produced 13 cwts. of pig-lead to 20 cwts. of ore, and 160 ozs. 4 dwts. of silver to the ton of ore; and a stone of the work undressed has produced 9 cwts. 2 qrs. 14 lbs. of pig-lead to a ton of ore. We have opened on it about 6 ft. in length; and, from its appearance, it is likely to continue both north and south. The 20 fm. level now driving north, we intend to force with all possible speed towards this discovery; the stopes are turning out tolerably well. We sampled, last Wednesday, 5½ tons of rich ore, which are to be sold on the 31st July; and we are getting on well towards the next sampling.

TRELEIGH CONSOLS.—Garden's shaft, below the 113 fm. level, is sinking in the country, and is down 8 fms, 4 ft. below the 113 fm. level. In the 90, west of ditto, the lode is 18 in. wide, worth 3*l.* per fm. In the 80, west of ditto, the lode is 20 in. wide, worth 10*l.* per fm.; in the 80 fm. level, east of the cross-cut, the lode is 1 ft. wide with good stones of ore, and is looking kindly; in the 80 fm. level west, on the north part, the lode is 1 ft. wide, with stones of ore, and is promising from this level. The 70 fm. level, west of Garden's shaft, is suspended for the present. We have set a winze to communicate with the 90, at 4*l.* per fm. In the 60 fm. level, west of ditto, the lode is 3 ft. wide, with stones of ore. At Wheal Parent, the engine-shaft, below the 30 fm. level, is sinking in the country south of the lode; in the 30 fm. level, east of ditto, the lode is 2 ft. wide, worth 10*l.* per fm.; in the 30 fm. level, west of ditto, the lode is 18 in. wide, worth 3*l.* per fm. In the 20 fm. level, west of ditto, the lode is 1 ft. wide, with stones o fore. In the whim-shaft, below the 12 fm. level, the lode is 20 in. wide—some ore, and is looking very kindly. Nicholson's shaft, on the middle lode, is below the surface; this shaft is now holed to the adit, and the men are to timber the shaft from the surface to adit for 7*l.*

WEST WHEAL JEWEL.—The winze in the bottom of the 57 fm. level, west of Williams's cross-course, on Wheal Jewel lode, is communicated to the rise in the back of the 70 fm. level in the past week. In the 47 fm. level, west of Williams's cross-course, on same lode, lode not taken down in the past week. In the deep adit, west of Williams's cross-course, on the same lode, the lode is producing stones of ore. In the deep adit, west of Tregoning's shaft, on Tolcarne tin lode, the lode is producing stones of tin. In the stopes in the back of the 12 fm. level, west of Pryor's winze, on Tolcarne tin lode, the lode is worth 12*l.* per fm.; in the stopes in the back of the same level, east of Pryor's winze, the lode is worth 9*l.* per fm. In the stopes in the bottom of the 12 fm. level, east of Tregoning's shaft, the lode is worth 13*l.* per fm.; in the stopes in the bottom of the above level, east of Tregoning's winze, the lode is worth 18*l.* per fathom. These stopes are working on tribute.

WHEAL BENNY.—In the south adit level east the lode is 2½ ft. wide; this lode, you are aware, when first cut, was 4 ft. wide; it then, after a few fathoms driving, split into several small branches; these are now united, and the lode looks much more promising for tin. On the Benny lode there was a winze sunk below the adit by the former party, but to what depth we cannot exactly ascertain; this winze is now being drained by the Lamheroce cross-course, so that shortly we may expect to see and ascertain the character of it at the bottom, from which point some fine stones of ore were raised, and are now at the surface; this we can do without increasing our hands. The Ford shaft is not yet drained; the water is a little below the 20 fm. level.

WHEAL MARY ANN.—Pollard's shaft is sunk 3 ft under the 50 fathom level, where the ground is still unfavourable for sinking; the lode in the 50, north of this shaft, is 2 ft. wide, and worth 5*l.* per fm.; in the same level south the lode is 2 feet wide, and worth 4*l.* per fm.; the stopes in the back of this level are yielding a fair quantity of lead. The lode in the 40, south of this shaft, is 1½ ft. wide, producing good stones of lead; the lode in the rise in the back of this level, is 1 ft. wide, producing good stones of lead. The lode in the 30, south of this shaft, is as last reported; the winze under this level is suspended, in consequence of an increase of water, but we expect to hole it from the rise, in the back of the 40 fm. level, in the course of a few days. At Barratt's shaft, the winze under the 50 fm. level, north of this shaft, is holed to the 60 fm. level, where the lode is 1½ ft. wide, and worth 7*l.* per fm. Barratt's shaft is sunk 2 fms. under the 50 fm. level, where the lode is 2 ft. wide, and worth 14*l.* per fm.; the lode in the 50, south of this shaft, is 4 ft. wide, and worth 12*l.* per fm.; the stopes in the back of this level are producing a fair quantity of ore. The stopes in the back of the 40 fathom level, south of this shaft, are producing a fair quantity of ore. On Saturday last we sold a parcel of lead ore, computed 62 tons, to Messrs. Sims, Williams, Neville and Co., at 17*l.* 19s. 6d. per ton.

WHEAL TRESCOLL.—Our north and south lodes are still producing good work for tin of the richest quality. We sold a parcel last week, and had the highest price of any mine in the county—only 10s. below the best grain tin price. We are getting on as fast as possible with the wheel pit for the 48-feet wheel to stamp with; the castings are nearly all finished, and I think there is no doubt that the stamps will be at work at the time named to one of the committee and principal adventurers, Mr. Denny, of Coggeshall, Essex, when here a few days since, who expressed himself satisfied with the machinery and appearance of the mine, and is quite confident, after we have the large stamps at work, that the mine will make large profits to the adventurers, and gave orders for the erection of the large wheel and stamps immediately. The engine shaft is still sinking in good ground.

WHEAL TRELAWNY.—At Phillips's shaft, the 82 fm. level cross-cut is driven about 10 fms. east; the ground continues as was last reported. The lode in the 72, north of this shaft, is 1½ ft. wide, and worth 10*l.* per fm.; in the same level south, the lode is 1½ ft. wide, and worth 9*l.* per fm.; the stopes in the back of this level are producing very favourably. The lode in the 62 north is 5 ft. wide, and worth 18*l.* per fm.; the stopes in the back of this level are very productive: the lode in the winze sinking under this level south is 2½ ft. wide, and worth 10*l.* per fm. At Trelawny shaft, the 72 fathom level cross-cut is driven westward 6½ fathoms. The lode in the 52, north of this shaft, is 3 ft. wide, and worth 14*l.* per fm.; the stopes in the back of this level continue to be fairly productive. The stopes in the back of the 42 north are also fairly productive; the lode in the winze under this level is 2 ft. wide, and worth 12*l.* per fm. At the north mine, the lode in the 55, north of Trehane Mine, is 2 ft. wide, and worth 5*l.* per fathom. The lode in the 45, north of Trehane, is 3 ft. wide, and worth 7*l.* per fm. Smith's shaft is sunk 5 fms. under the 40 fm. level: the lode in the bottom of this shaft is 3½ ft. wide, and worth 7*l.* per fm. The lode in the 40, south of this shaft, is 2½ feet wide, and worth 7*l.* per fm.; the stopes in the back of this level are usually productive. The lode in the 40, north of this shaft, is 2 ft. wide, and worth 5*l.* per fm. The stopes in the back of the 30 fm. level are also usually productive.

WHEAL VINCENT.—The south lode is still continuing productive, producing fine work indeed. The north lode is just as last reported on—moderate stamps work. We are using every means to get the stamps completed by the time I mentioned in my last. I have received the agents' reports, which I shall produce at the meeting.

FOREIGN MINES.

BAROSSA RANGE MINES—*Angaston, April* 16.—At Lyndoch Valley, last Wednesday, we holed our new shaft (called Mary's shaft) to Simon's shaft, by a 7 fm. cross-cut. We have now good air, and are denuding or uncovering the ore part of the lode; and I think, in a month or six weeks, we shall have several tons of good ore broken. I have just returned from the Bremier Mine, Mount Barker, where we have a shaft down 8 fms. (called Betsey's shaft), at the bottom of which a good lode is appearing. When I left the men had cut into it about 2 ft., at which point good ores were raising. The per centage is about 27, but not then through the lode. This is promising—and I expect, from the ores now in sight, that a large and good portion of copper ores will be broke. This lode is running nearly east and west, and close to it are a great number of branches running north and south, all bearing good saving work for copper. The shaft is sunk on the course of the lode, each end of which will pay for working from top to bottom. We are not likely to cut water until down 20 fms. in any part of the old workings; and, as these are several lodes in 50 fms. width, we are warranted to hope for profitable ore ground, especially at or near Betsey's shaft. I would write cautiously, because lodes in this colony are very changeable; but I think we shall not be disappointed in expecting a pretty large deposit of ores in this place. We have shipped on board the *Royal Archer*, at 60s. per ton, about 35 tons of good copper ore, and have four tons more ready, but I fear the drays will not be down in time for the vessel. When the bill of lading is sent up, I will write you the particulars of the quantities, number, and marks of bags, &c. In two months' time, weather permitting, we hope to make another shipment.

LINARES LEAD MINES.—[Extract of a letter from Mr. Henry Thomas, dated Linares, July 10.]—I expect we shall be able to examine the first level of the mine soon; the water is down about 14 fms. from surface, and the first level 15 fms.; though the upper part of the mine has been worked away, yet I am anxious to verify the statements made, and to see as soon as possible what part of the workings are applicable for our future operations. The price of lead is less here than in England; but after having unwatered the mine, we shall work with many advantages, moderate royalty, and cheap labour (Spanish), which, so far as I can judge, is very good in this district, and the men willing and industrious.—[The cargo of the *One and All* arrived.]

IMPERIAL BRAZILIAN MINES.—Gold report from—

Gongo Soco, from 14th to 22d May					*Lbs.*	2	1	7	0	
Bananal,	ditto	ditto				1	9	4	0—3	10 11 0
Total from Jan. 1 —Bananal					*Lbs.*	83	8	14	0	
,,	Gongo Soco					72	9	19	0—156	6 13 0

NATIONAL BRAZILIAN MINES.—*Cocaes, May* 23.—The ground in the eastern end still continues favourable; it is for the most part composed of chlorite slate, and that not very hard for boring, so that a communication to Irving's Mine may yet be effected earlier, and with less difficulty, than we expected it would have been done.

Cocaes produce, May 13 to 23	*Mks.*	3	2	0 30
Cuiaba ditto, May 16 to 26		1	6	7 20—*Mks.* 5 0 7 50

ST. JOHN DEL REY MINES.—*Morro Velho, May* 28.—Gold extracted to date, 15,043 oitavas, from 885 4-10ths cubic feet of sand (result of 21 days' stamping) =17 oits. per cubic foot.—Stamps working 27 days, average 93·52 heads.—The supply of stone continues to be affected by the same causes latterly referred to. Already this month we have brought in upwards of 500 tons from the refuse heap, which, I am sorry to observe, is fast disappearing. Just now the supply from the mine is further affected by the almost total desertion of our Brazilian borers, who are enjoying the holidays.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

BIRCH TOR AND VITIFER.—During the last week, the 160 1-280th shares, which were in the hands of the company, were offered by tender to shareholders only, with an intimation that less than 5*l.* per share would not be accepted; but the recent discoveries in the old Vitifer lode, both east and west, under the great workings of the ancients, created such a demand, that tenders for 275 shares were received, varying from 5*l.* to 5*l.* 12s. 6d., and giving an average of 5*l.* 8s. 9d. per share; and, during the current week, 5*l.* 10s. and 6*l.* have been offered, but holders are firm. Offers have been received for over 50 since the tenders were opened; this will more than free the mine from debt.

At **EAST BULLER**, they have cleared up the shaft and shallow adit, where a fine gossan lode has been found, varying from 3 to 5 ft. wide for 105 fms. in length, and every appearance of a good and productive mine is presented.

HENNOCK IRON AND TIN MINE.—This sett, about a mile long from east to west, and half a mile wide, is situate at Hennock, 12 miles from Exeter, and 5 miles from the port of Teignmouth, nearly the whole formation of which is a decomposed granite, said to be highly productive in metalliferous deposits, particularly having an unlimited quantity of rich micaceous peroxide of iron, yielding 50 per cent. of iron, of a very superior quality for the manufacture of steel. A lease is held for 21 years, at a standard rent of 300*l.*, without other dues. From one lode, averaging 7 feet wide, at a depth of 10 fms., 16,000 tons of this iron ore have been raised, and can be continued, at a cost not exceeding 2s. per ton, and it is estimated that 2000 tons per month may be disposed of, realising a profit of from 4000*l.* to 5000*l.* per annum. The Bovey lignite is in the immediate vicinity, and may hereafter prove highly valuable for smelting purposes. Tin has also been found in a distinct lode from the above; and from the reports of several respectable mine agents attached to the prospectus, the mine, appears to give promise of being highly valuable. It is proposed to divide it into 4500 shares, at 2*l.* 2s. per share, no further call to be made.

WHEAL ARTHUR.—This is an extensive sett, situated in the parishes of St. Allen and St. Erne, being about two miles from the the celebrated East Wheal Rose, having the same, or, at least, parallel, lodes, and gives hopes of returning large quantities of ore. The lords are the Ecclesiastical Commissioners and the Bishop of Exeter, and the present depth is only to the adit level, which has been extended on a highly promising lead lode for a distance of 190 fms. On Monday, the 23d July, about 30 persons from the neighbouring towns of Hayle, Penzance, &c., attended to witness the setting to work the new steam-engine erected for draining the mine; the machinery was manufactured by Mr. West, of St. Blazey, and worked highly satisfactory, after which the company sat down to a sumptuous and substantial dinner, provided in a tent on the grounds. The usual toasts were drank with enthusiasm, as were those of the bishop, Mr. Treffry, and other mining benefactors. The workmen were regaled with a good dinner of beef and plenty of ale, and the afternoon was passed in high glee and good feeling. The prosperous working of this mine, and the consequent employment of the population, is anxiously looked for in the neighbourhood.

AUSTRALIAN MINING COMPANY.

The annual general meeting of shareholders in this company was held at the offices, Adelaide-place, London-bridge, on Monday last, July 30th.

JAMES HORNE, Esq., in the chair.

Mr. JOSEPH (the secretary) having read the notice convening the meeting,

The CHAIRMAN observed that, expecting rather a numerous attendance of shareholders on the occasion, the directors, thinking it probable the room they were in would be inconveniently crowded, had engaged a room at the Adelaide Hotel, just by, to which he should feel obliged by the meeting adjourning. He should not have troubled them, but it was necessary to read the notice in the room advertised.—The meeting accordingly adjourned to the large room at the Adelaide Hotel, when Mr. JOSEPH read the minutes of the last meeting, which were confirmed, and the following

DIRECTORS' REPORT.

The directors of the Australian Mining Company present to the general meeting of shareholders their fourth annual report, and congratulate them on the great and successful development of their property in the past year. During this period the workings of the mines at Tungkillo have been pushed forward with the utmost vigour; the very laborious and expensive undertaking of driving the deep adit is now effected to the extent of 180 fms., and a tram-road is laid down 150 fms.: by the completion of this operation, and the holing of the several winzes to the 40 fm. level, where it is intersected by the adit, the mine has been brought into general and effective working; Capt. Phillips has always had this object in view, to the exclusion of any temporary display, and your directors hear from all sides that it is the general opinion in the colony, fully substantiated by Major Campbell, that the Tungkillo Mine has been well opened, and is now in a most prosperous working condition Capt. Phillips refrained from recommending any large outlay for machinery, until he had thoroughly proved the mine; it is, therefore, a matter of very great congratulation to the directors that he has thought its prospects sufficiently encouraging, and the indications of a lasting mine so strong, as to induce him to send home a requisition for steam power, pit work, and other machinery for three shafts, sufficient to take the mine down 100 fms. below the adit, together with a general supply of mining implements and stores. Your directors, fully convinced of their captain's practical ability, and cautious mode of proceeding, and well aware that a deep mine cannot be effectually worked without steam power, have lost no time in carrying out his views: after the fullest consideration, the whole order has been executed by contract, in the very best manner, and is now on its way to the colony. An engineer and enginemen have likewise been engaged, in pursuance of Capt. Phillip's request, and have gone out with the engines. It is also gratifying to state, that the captain has confirmed his opinion of the permanent character of the mine, by sending for his wife and family to join him there.

The machinery and the expenses contingent thereon have cost about 6000*l.*, an amount of outlay small, as compared with the value of the property, which Capt. Phillips, in a letter dated so far back as the 4th November, estimated at 200,000*l.*, with the prospect of a greatly improved annual value.

The ore shipped per *Branksmoor*, mentioned in the last annual report, has been sold, and has realised a profit of 1600*l.*, or 12*l.* per ton. A cargo of 200 tons has just arrived by the *Harpley*, and is likely to realise about the same amount; while the stock of ore at Adelaide, on the 7th April, was 63 tons, above 26 per cent., and 300 tons available for smelting in the colony.

Your directors have the satisfaction to announce the safe arrival in the colony on the 22d January, of Major Campbell, the company's general superintendent, from whom advices have been received to the 18th April; and the board have great pleasure in stating their belief, that from the earnest manner in which he had entered on his duties, and the great ability displayed in carrying out his instructions, Major Campbell will fully accomplish the wishes, and support the interest, of the proprietors. The following extracts from his several letters will be read with lively interest. In speaking of his first visit to Tungkillo, he says, under date the 7th of February:—

"I found the mine had been worked in a masterly and effective manner, and much praise is due both to Capt. Phillips and to Capt. Dennis, his predecessor in those operations. I inclose you a copy of Capt. Phillips's report of the 25th January, by which you will perceive that the holing of the deep adit, hitherto termed the 40 fm. level, into Baker's lode, has been effected. Some very fine copper has been taken from the lode in adit; and it is Capt. Phillips's intention to drive therein two short cross-cuts, so as to intersect Anstey's lode a short distance from its junction with Baker's lode. Captain Phillips appears to entertain full confidence that this operation will result in the development of a strong body of copper ore, an opinion in which I am disposed to coincide. The quantity of ore upon the floors will be specified in Capt. Phillips's reports, and I have pressed upon him the necessity of sending this down with all possible speed. There remains also a considerable quantity of inferior ore, which it is conceived will scarcely be worth the expense of shipment to England, the ultimate disposition of which will be matter for future consideration; most probably it will have to be smelted in the colony. The utmost harmony and good feeling appears to exist among the miners and the officers of the company, not a single complaint having been offered, and the setting bargains were cheerfully taken at the captain's prices. After a careful examination of the books and stores of the clerk of the mine, Mr. Solly, I have great satisfaction in bringing under the favourable notice of the board the extremely correct and methodical plan which this gentleman has adopted in his office. I avail myself of this opportunity of likewise reporting to the board my high opinion of Capt. Phillips's ability and fidelity to the interest of the company, and of recording my obligation to Mr. Borrow, the secretary, for the clear and satisfactory manner in which he has rendered me every explanation and information I have required, not only in his own department, but as connected with the general affairs of the company."

The following extracts from letters from Major Campbell to Capt. Phillips, dated 26th February and 3rd March, show how fully the new superintendent was bent on carrying out the wishes of the directors in concentrating the mining force on productive work:—

Extract, 26th Feb.: "We may now be enabled to concentrate our energies upon the Tungkillo Mines, and I cannot possibly give you a better guide for the course you should pursue, than by quoting the exact words of the secretary, dated London, 24th of June, 1848—' The board wish it to be clearly understood, that while they desire that the mines should, in Capt. Phillips's opinion, have every chance, they beg that the labour should be directed to those points presenting the most likely prospects of speedy return; and that any outlay for the purpose of experiment or exploring, be done in the most cautious and economical manner possible.' You will, with the above for your guide, at the same time, bear in mind how very costly our expenses already are at Tungkillo, and how needful it is to keep them down as much as possible, without impairing the efficiency of the workings, until, at all events, we are in a more paying position as to the quantity of ore raised. You have a long list of men who are under agreement with us; these ought of themselves, I incline to think, go far towards forming an effective working establishment. I am, however, so thoroughly satisfied with your zeal in behalf of the company, that I do not wish to fetter you with any further suggestions. Please to let me have a detailed plan of the mode in which you would propose to carry out the wishes of the directors, particularly stating the number of men to be employed over and above our establishment. Your last accounts from the mine continue to be very cheering."

Extract March 3: "I have duly considered your report of this date, and I approve of your recommendations, and request you to carry into effect the reductions proposed in the expenditure. As I view the sinking of Anstey's shaft to be one which, on the arrival of the steam-engine, will be of the utmost importance for the deep drainage of the mine, and as we have an unexpired contract for horse labour, which we cannot get rid of, you had better continue this work. You will be pleased to meet me on Friday next at Allan's Creek or Wheal Rothschild, when you will show me all the workings where trial has been made for copper ore, and any indications that may exist, and furnish me with your written opinion as to the expedience of continuing our workings there; bearing also in mind, that it is the main object not to be squandering our employer's money in idle seekings for what is only speculative expectation, but to devote the funds exclusively to what appears to promise a tolerable certain and speedy return. You are already in possession of my sentiments respecting the reductions to be made in the expenses at Montacute. You will, of course, use every exertion to economise as much as possible the incidental expenses of the company's mines, and I entertain great hopes that our next month's expenditure will be so reduced, while no work, the stoppage of which would be likely to impair the future efficiency of the mine is suspended, as to enable me to transmit a report which will be gratifying to the directors."

His letter to the board, dated 13th April, of which an extract is also made, gives the following cheering account of the special survey, and shows the zeal evinced generally by Major Campbell; and his last communication of the 18th April manifests the late and splendid progress made in the working at Tungkillo.

Extract of the letter dated April 13: "I beg to report, that on the 6th inst. I proceeded to Tungkillo, and have the pleasure of informing the directors that complete success has attended all our recent operations, having cut the lode in the cross-cut, supposed to be either Hagen's or Anstey's, being the continuation from where we have previously been stoping, which stoping still continues. We have a very large quantity of most excellent quality ore at grass and in the mine, among which are some blocks weighing from 6 to 12 cwts. each, three of which I propose to send home intact, in order to gratify the company with ocular witnesses that our lode is no petty string or vein, but a right substantial one, varying in width from 4 to 6 ft. My previous correspondence will have shown the directors that the pump at Wheal Rothschild was overpowed by water in February last, and that nothing short of a steam-engine will enable us to renew our operations on that lode, one which certainly is worth further trial when we have the means. As in sinking below the adit, or 40, at Tungkillo, we have been stopped by water, down to the level of which we have found rich ore, I have had the pump useless at Wheal Rothschild removed to Tungkillo, and as soon as Masterman's shaft is completed, we shall be in full play, descending to what will, doubtless, be the 10 fm. level below the adit, or 50 fm. level, working right and left on ore ground—this operation Capt. Phillips expects will be completed in all May. In riding over about 15 miles of the property, examining the new township, I found a valley or gully of good land, which will suit extremely well for a paddock for our horses, a plantation for the black poplars, and for gardens for the miners, a number of whom are anxious to rent from 2 to 5 acres each, at 1*l.* an acre; a gardener has agreed for 5 acres to form a market garden for supplying the miners, their families, and the township with vegetables. Of the 45 quarter acre allotments in the new township, 30 have already been taken at 1*l.* per annum rent each, and the remainder will be taken immediately; 23 cottages have been erected, or are in progress, at the expense of the allottees or tenants. The chapel is nearly completed, and will be finished very shortly, in a great measure by the voluntary contributions of the miners. I am looking for a letter from you with the particulars of your correspondence with the bishop. I shall very shortly establish a reading-room, and have already contributed a regular file of the *St. James's Chronicle*, for which I am told the people are very grateful; they are an orderly well conducted little community, mostly Wesleyan Methodists, or Church of England, and most zealous and enthusiastic in their estimation of the character of the Tungkillo Mine. Fresh water is in abundance all the year round. Near the north end mine (where we are not operating at present) there is an excellent stone quarry for building purposes, and a lime kiln, there being an abundance of lime on the property. Timber for mining purposes is obtained by contract at 12s. per 100 feet, including carriage; it is not from our own land, but it is brought from a distance of 16 miles. We have some timber, gum tree (Eucalyptus) and she oak, but neither of these are exactly suited for our underground purposes. We are going to experiment in making charcoal of the she oak. I shall, with an eye to futurity, plant young Acacias and gum trees, which latter grow rapidly for the first six years, and are then saplings of a fit size for what we require, and I am thus in hopes that long before timber becomes scarce in our neighbourhood, we shall find that our foresight has provided to hand a series of plantations which will supply all our

wants. Curiously enough as I am writing these words, the post has come in with a letter from Capt. Phillips, giving information of his having discovered plenty of timber within a mile of the property.—Most heartily congratulating the company upon our present glorious prospects, I remain, &c."

Extract, April 18: "Our operations at Tungkillo continue most successful: 100 tons of rich ore may be calculated upon per month; this is Capt. Phillips' estimate, and he ought to be a judge of the quantity that can be extracted; the ore is there, and under command for upwards of 25 fms. A specimen of it has been assayed, and it yielded a produce of 59½, which may be taken as rather higher than the ore generally will average. Three splendid stones are on their way, destined to convince the directors and the shareholders by ocular demonstration, that our success is real and substantial."

"The quantity of ores raised from the commencement, averaging 26 per cent. produce, is 430 tons, with 300 tons of less produce, available for smelting in the colony—making a total of 730 tons."

As the copper market is recovering from its late depression, and affairs on the continent assume rather a more settled aspect, the company's imports will, it is hoped, arrive to a good market, and realize a handsome profit. Instructions have been given and the fullest information supplied to Major Campbell to guide him in smelting or disposing of the poorer ores in the colony.

In consequence of the opposition offered to any new importations of emery, owing to its having been for a number of years an article of complete monopoly, very limited sales have hitherto been made; your directors, however, believing the Tungkillo emery to be good, have determined to submit the stock remaining on hand for competition at public sale; a small quantity of superior character is expected by an early vessel.

A voluminous report of the cobalt discovery at Wheal Rothschild has just been received from Dr. Davey, of Adelaide, and has been referred to an eminent chemist here for his opinion thereon. But as the influx of water could only be counteracted by steam power the workings are suspended for the present; the property, however, is spoken of highly for agricultural purposes, several applications for allotments and farms had been made, and printed forms of leases were being prepared for tenants.

The expectations which the local committee entertained of the Montacute Mine not having been realised, the workings will be abandoned at the expiration of the lease, which is now nearly run out. The mine is now, however, being worked only on tribute, at no loss to the company, and with the chance of any improvement which may take place.

It has always been the studious wish of the directors to endeavour to abstain from making additions to the capital account; but, acting up to the feeling which they have ever observed to exist at the general meeting of the shareholders, that a sufficient sum should be employed to carry out the full wants of the company, they have made a call of 1*l.* per share, payable on or before Tuesday, the 21st of August, at the banking house of Messrs. Masterman and Co.

This instalment must be considered as differing from all previous payments, not being to prove a speculative property, but to work a successful mine, and the directors doubt not that the same will be cheerfully responded to on the part of the shareholders. The amount called up will liquidate all debts, pay for the machinery, and form sufficient working capital until the engines are fixed. From the stock of ore in the colony, and by the nature of Major Campbell's instructions, regular shipments will be made periodically, and it is confidently expected that the mineral resources of Tungkillo alone will hereafter pay the whole of the annual expenses of the company, and leave a handsome dividend for the shareholders.

Since the directors last met you, they have sustained a great loss by the death of their late lamented deputy-chairman, Hananel de Castro, Esq., whose connection with the company since its formation, and whose close and persevering attention thereto, gained for him universal esteem at the board, and secured the confidence of the shareholders. By virtue of the power vested in them by the Deed of Settlement, your directors have elected Charles Downes, Esq., in his stead, fully believing that his general business habits and well known honour and integrity will be found most serviceable to the company.

It may be as well to state that up to the present time neither the directors nor the local committee have received any remuneration for their attention to the interests of the company, and that your auditors have on each occasion declined to receive the grant annually made for their services.

Three directors go out of office by rotation this day, agreeably with the Deed of Settlement—James Horne, Esq., John Masterman, Jun., Esq., and G. E. Hodgkinson, Esq. These gentlemen being eligible, offer themselves, and are recommended for re-election accordingly.

Due notice has also been given for filling up the two vacancies occasioned by the decease of Hananel de Castro, Esq., and the retirement of John Capper, Esq., and the following gentlemen have offered themselves, both of whom are duly qualified—John Capper, Esq., for re-election, and James Ashwell, Esq.

Your directors submit the following motion in order to afford additional facility for voting by proxy at general elections:—That without prejudice to any other part of clause No. 35 of the Australian Mining Company's Deed of Settlement, or any other part of such deed, so much of the said clause, No. 35, as provides that no vote by proxy shall, in any case, be admitted, unless such proxy shall be in the form, or to the effect thereinafter set forth, be repealed, and made void; and that henceforth, votes by proxy shall (subject to the other provisions of the said clause) be admitted at any general meeting of the shareholders of the said company, whether such proxy be in the form or to the effect before mentioned or referred to, or in the form to the effect following, that is to say,—

"I, —— one of the shareholders in the Australian Mining Company, do hereby appoint —— to be my proxy, in my name and in my absence to vote in such manner as he shall think proper, at a general meeting of shareholders of the said company, to be holden on the —— day of ——, or at any adjournment of such meeting.

"Dated this —— day of ——, 18—."

The following is a statement of receipts and expenditure from July 4th, 1845, to June 15th, 1849:—

	£		
Masterman, Peters, and Co., cash account	989	13	5
Interest account	1,427	11	10
Stock account, mining land	23,170	0	0
Ditto office furniture	525	11	3
Preliminary formation expenses	834	17	11
Chartered ships account	122	2	2
Office expenses	3,135	5	5
Petty cash	25	6	10
Miners' wages	17,963	13	6
Insurance account	273	17	9
Local committee of management at their debit, for general expenses, in account	4163	7	9
Colonial stock account, buildings	2,034	14	10
Colonial cartage account	811	3	6
Copper ore adventure account	4,476	10	3
General stock account, stores bought for miners, bullocks, drays, and mining implements	5,812	19	3
Emery account	463	16	4
Total account	£68,230	11	8

	£		
Masterman, Peters, and Co., loan account	3,000	0	0
Instalment account, shareholders stock	56,970	0	0
Bills payable	6,650	0	0
Copper ore account	1,610	11	8
Total	£68,230	11	8

On the directors' attendances being read, the CHAIRMAN appeared to have been absent at two board meetings which had been held, which he explained by stating, that he was very anxious to see their new superintendent (Major Campbell) off; and he had been detained at Portsmouth some time waiting the arrival of the ship, when those absences occurred. He then briefly adverted in a feeling manner to the severe loss they had all sustained in the death of their late respected deputy-chairman (Hananel de Castro, Esq.), so deeply interested in the success of the company—one in whom was so thoroughly combined the qualities of the man of business with the perfect gentleman—one whose kindness of heart was ever prompting him to acts of charity, many of which had now come to light, which would never have been known while he lived. With respect to their property, he congratulated the meeting on the fact that there was no further room for anxiety—that they had discovered a valuable, productive, and lasting mine, and one which would pay handsome dividends, independent of the surface property.—Mr. JOSEPH then read some extracts from letters which had arrived since the report had been drawn up, and could not be embodied in it. Capt. Phillips therein stated, that in the stopes east and west of Goad's, the ground had become sufficiently easy to work with pick and gad only—that they found a quantity of almost native copper of a sandy friable nature, which they picked up and placed in bags, and which, by pulverising and washing, they could get up to 90 per cent.—that in exploring the country, they had discovered seven distinct and separate lodes in three miles, all more or less promising, and containing at surface fine carbonate of copper and pyrites.

In answer to Mr. Anderton, as to how it was that a wood could exist within a mile of the mine, and their agents not be aware of its existence, the CHAIRMAN explained, that it more probably meant to convey the idea that the proper description of wood for the mines had been found on penetrating the scrub, than the discovery of the wood itself.

In reply to Mr. Penny, Mr. JOSEPH said the Montacute Mine had cost about 1700*l.*, and had returned 1000*l.* worth of ores, involving a loss of 700*l.*

Mr. PENNY then inquired the gross income from the surface land, including the sheep run over their whole estate, held by Mr. Baker, one of the local committee?—The CHAIRMAN said, the subject had had the serious attention of the directors, and had been considered with much anxiety. They had only within the last few days obtained the necessary documents from Adelaide to enable them to go into the subject; they were, therefore, not yet in a position to give any information on it. It was a very delicate matter, requiring much care in the arrangement; but he had no doubt by their next meeting all would be settled.—So no considerable discussion took place on this point; but it was ultimately determined to leave it in the hands of the directors.

A long discussion took place on the alteration in voting by proxy, as proposed in the director's report, in which the chairman, Messrs. Anderton, Penny, Downes, Wilson, and others, joined, when at length the report was received and adopted, and, with the balance-sheet, ordered to be printed and circulated among the proprietors; the proposed 2s. 6d. stamp proxy agreed to; J. Horne, J. Masterman, jun., and G. E. Hodgkinson, Esqs., who went out of office by rotation, were re-elected; John Capper, Esq., who some time since retired, was re-elected, and James Ashwell, Esq., was elected a director, in the room of H. de Castro, Esq., deceased.

Mr. R. SHEPPARD having been refused, according to the custom of the office, an inspection of the shareholder's ledger, the subject was brought before the meeting for their decision by the chairman. It appeared that, under certain regulations, the shareholders had access to all the other books of the company; but this one which contained the whole of the transfers of shares, showing exactly how many each proprietor bought or sold in a given time, the directors considered they were justified in keeping private.—Mr. SHEPPARD contended, that what could be inspected by all the directors, the secretary, and clerks, ought to be open to the body of shareholders, they certainly being their property.—No one, however, was found to second the motion, and it, of course, fell to the ground; the mover saying he was by no means discouraged, but should bring it forward on a future occasion.—10*l.* was then voted to each of the auditors for their annual services.—Mr. BUCKLE, an auditor, stated it was merely a matter of form, as those gentlemen handsomely declined to accept anything until the mine paid a dividend.—A vote of thanks was passed with acclamation to the chairman and directors, and the meeting broke up.

SOUTH AUSTRALIAN MINING ASSOCIATION (BURRA BURRA).

The fourth annual general meeting of proprietors was held at their offices, Rundle-street, Adelaide, on the 18th of April,

CHARLES BECK, Esq., in the chair.

After the usual preliminaries, the following report and statement of accounts were presented to the meeting:—

In the last report to the shareholders, the directors expressed their fear that the ores of the preceding year would find a depressed market, and such has been the fact, to a greater extent even than they then anticipated. At one period the average of Burra Burra ores produced 9*l.* per ton less than formerly. From this circumstance, and the improper state in which a large quantity of the ore of 1848 was unfortunately sent from the mines and shipped, and which was only discovered subsequently, the profits arising to the association during the last half-year have not been sufficient to warrant the directors in declaring a dividend. During the last two months the ore market has considerably improved, although it has not recovered its former state; but should the present prices be maintained, the directors intend to resume the payment of dividends at an early period. The proprietary will be pleased to learn that while a cloud has been passing over the affairs of the company, from the unprecedented state of the markets, discoveries have been made in the mine which give the directors the greatest confidence in its present value and future prosperity. The most important of these are the lodes, one in the 30 fm. level, south-west from Graham's shaft, consisting of red oxide and malachite in great abundance; and the other 2 fms. wide, in the 30 fm. level, east from Kingston shaft, yielding malachite of high produce. Some idea of their value may be formed when it is known that during the present take the men (19 in number) employed in the only two pitches set on these lodes, in the first week of their workings produced 80 tons of the richest ores. It is most satisfactory that in all these discoveries the lodes appear well defined, and the ore improves in quality in depth. In the old workings new lodes continue to be found, and there yet remains a good extent of ore ground in the 20 fm. levels. The directors increased the exploratory works generally at the last survey day, and they have reason to believe that it will be attended with beneficial results. The pumping engine, of 85-horse power, together with the pitwork recently imported by the association, have been safely carted to the mine. The engine-house is in course of erection, and the directors trust that before the next meeting of shareholders the engine will be fixed and at work, for without its assistance the works in the 30 fm level cannot be proceeded with to any great extent. The directors submit an extract of Capt. Roach's report of 14th inst., received this day:—"The pitches in the 30 fm. level, at Kingston's and Graham's are turning out satisfactory. Ayers' shaft is 29 fms. deep, at the bottom of which we have a good lode of oxide and malachite, principally the former. The shaft is all lode at present. When we get to the 30 fm. level we shall extend our cross-cuts east and west, which will open a great deal of tribute ground, which, from present appearances, will be worked at a low rate of tribute. In the 20 fm. level, at Roach's engine-shaft, we have a fine bunch of malachite of first-rate quality."

As intimated in the former report, the directors intended resuming the underground works in November last, but where prevented by the refusal of the workmen to take the wages offered them. This state of matters continued until January last, when operations were partially resumed on the directors' terms; in February and March more extensively so; and, at present, to a larger extent than ever, the number employed on the works, including the officers, being 613. This will account for the small quantity of ore produced in the last six months, as shown in the ore return annexed. The production of the February and March "take" was equal to 1000 tons per month. The present take is expected to be more productive. The directors have to observe, in explanation of the deficiency in the quantity of ore stated to be on the mines in September last, and what it actually proved to be, that it arose partly from over estimation, but in a great degree to the waste in re-dressing these ores, a course the directors found necessary to take, in consequence of the imperfect manner in which they had been previously dressed.

From the establishment of smelting works in this province and in Sydney, the shipment of ores to Britain will be very much diminished, if not altogether abandoned, and the increased profits arising from the sale of the ores within the province will be considerable. As the particulars of the arrangement entered into by the directors with the Patent Copper Company will be submitted to the meeting of shareholders, it is unnecessary for the directors to remark on the subject here, beyond stating that the delivery of the ore to the company commenced a fortnight since, and the first tapping of coarse copper took place last week.

The current balance-sheet exhibits to the debit of the association 30,614*l.* 19s. 4d., which will be fully balanced by the drafts against the stock of ore on hand and the bills receivable, besides which the association have from 6000*l.* to 7000*l.* in London, to provide for any contingency arising there—which, however, is not anticipated, unless a further decline takes place in the ore market. The company's liabilities are, therefore, fully provided for; and even without an improvement in the present prices of ore, a large sum will accrue from the sale of the 14,000 tons now afloat, after payment of the drafts against the same. It will be necessary to elect five directors in the place of Messrs. Allen, Paxton, Peacock, Stocks, and Waterhouse, who retire, but who are eligible for re-election; and also a director to fill the vacancy of John Ellis, Esq., disqualified.

Return of the stock of ore on hand at the half-year ending 30th Sept. last (caculated at 21 cwts. to the ton), with the quantity raised since that period, showing the quantities carted from the mines, on the road, sold, exported for sale, and remaining on hand at the port and mines:—

	ORE ON HAND.								
Sept. 30, 1848—At Port Adelaide	*Tons*	1736	12	0	16				
On the road to ditto		464	11	1	0				
At the mines 11,500 tons, but reduced by subsequent redressing to		8029	16	2	14	10,220	19	0	2
March 31, 1849—Raised since 6th January last						2,140	0	0	0
Total	*Tons*					12,360	19	0	2
Sept. 30, 1848, to March 31, 1849—Ore exported for sale	*Tons*					8,512	11	0	0
Sold within the province						643	6	3	10
March 31, 1849—On hand at Port Adelaide	*Tons*	678	7	1	20				
On the road to ditto		214	14	3	0				
At the mines		2312	0	0	0	3,205	1	0	20
Total	*Tons*					12,360	19	0	2

Balance-Sheet of South Australian Mining Association—March 31, 1847, to March 31, 1849.

	£		
Profit and loss from last balance	8,356	9	7
Capital stock	12,320	0	0
Rent of land and buildings	289	17	0
Sale of ore	55,335	14	9
Drafts against 14,289½ tons of ore exported for sale	160,615	5	2
Fees received on transfers, &c.	132	16	6
Sundry creditors	30,614	19	4
Unclaimed dividends	360	0	0
Total	£268,025	2	4
Landed property, buildings, &c.	£18,979	13	6
Wages and sundry accounts connected with the working of the Burra Burra Mines, including plant, fixed machinery, timber, bags, horses, tools, implements, stores, &c.	116,609	10	4
Cartage of ore	53,551	6	6
Charges, being expenses of establishment, officers' salaries, &c.	8,433	4	2
Colonial freight and agency	1,041	18	3
Discount, exchange, and interest	6,719	18	0
Office furniture	219	0	3
Shipping expenses and port agency	5,509	12	5
Sixth dividend (in part payment of 24,640*l.*)	24,520	0	0
Seventh dividend (in part payment of 24,640*l.*)	23,610	0	0
Sundry debtors	37	7	1
Bills receivable	8,195	0	0
Cash in hand	338	11	11
Bank of Australasia (unclaimed dividend fund)	360	0	0
Total	£268,025	2	4

The arrangement entered into by the directors with the Patent Copper Company, for the disposal of the association's ores, having been approved and confirmed, the thanks of the meeting were given to the chairman and directors, and the meeting separated,

QUEBEC MINING COMPANY.

The annual general meeting of shareholders was held at the office of the company, James-street, Quebec, on the 9th July last,—PETER PATERSON, Esq., in the chair,—when the accounts from the 30th of June, 1848, to 1st July, 1849, showed an excess of expenditure, over income, of 129*l.* 17s. 2d., the former having been 10,845*l.*, and the latter only 10,715*l.* 2s. 10d. Still, this expenditure of 10,845*l.* bears favourable comparison to that of the previous year, of 13,686*l.*, while, from the report, it appears that the general operations have been much more extensive, consequently hastening the approach of that period when returns may be expected. Considerable underground and surface works have been constructed; an avenue cut through a wood, and the ground levelled for a conduit to convey water to the stamps, a distance of 1200 yards, in which distance the declivity is such that two or three setts may be worked by the same water. The materials for the erection of a smelting furnace have arrived at the mines, and that work is also advancing, and is expected to be in operation by the end of August. A gentleman has been engaged to superintend this important department, who has acquired at Swansea the knowledge of the right amalgamation of different descriptions of ore, and whose previous residence in Chili, and his connection with the copper mines of that country, have enabled him also to acquire the art of smelting with wood fuel. A portion, however, of this vein stuff as it comes from the mine, is already of as high a per centage as is required for smelting, and will go direct to the furnace, without washing at all. The stamps will thus be relieved from a considerable portion of work, and the anxiety, trouble, and expense consequent on sending 400 to 500 tons of ore to market will be reduced to that attendant only on 100 tons of copper, while at the same time the company obtain the profit on smelting.

The general prospects of success are greater at the Mesurier Mine than those at the Paterson were at the same stage of operations, and present indications of the most promising nature. Ground has been cleared and prepared for agricultural purposes. Sufficient hay, oats, potatoes, and other vegetables, can be raised for the consumption of the colony. Several hogs and sheep have been sent to Mica Bay, which succeed admirably without expense; and with the abundance of excellent fish that are taken every day, the expenditure for provisions hereafter will be greatly reduced; indeed, in a short time the establishment will be independent as regards food, except for flour and groceries. The gradual discoveries of the last two years on Pointe aux Mines and Mica Bay are continuing up to this time, and, in all probability, will do so for many years to come. The surface party, in making roads, clearing land, and other surface work are, in fact, a party of explorers.

Every labourer, even in his hours of amusement in the woods, is an explorer; and, to encourage observation in the men, a reward is given to those who make known any indications of mineral they meet with; and hardly a day passes without some vein of more or less value being discovered. The value of these cheap explorations are highly appreciated, as forming a contrast with the ineffective and costly ones of 1846 and 1847. By the 1st of June, 1850, it is expected to have ready for shipment 10,000*l.* worth of copper, when calls will cease, and the fund enable the directors to erect more smelting furnaces; and by June, 1851, they hope to pay dividends—having sufficient reserves in hand for general purposes. The directors speak in the highest terms of the superintendent, Mr. O. H. Matthews; and say that to his talent as a miner are the shareholders indebted for the success in which they are about to participate, and to his judgment and knowledge of mining affairs are they indebted for much valuable information, which has enabled them to avoid many errors, and will be of infinite value to their successors in office hereafter

BOLANOS MINING COMPANY.

An adjourned special general meeting of shareholders in this company was held at the offices, Duke-street, Adelphi, on Wednesday, the 1st inst.

Sir ROBERT PRICE, Bart., in the chair.

Mr. HEAD (the secretary) having read the notice convening the meeting, the CHAIRMAN observed that they (the shareholders) had been called together for two purposes—for altering the 24th clause of the Deed of Settlement, and to consider the raising of further capital. At the general meeting, a doubt had arisen whether the directors had power to issue preference shares, and it was best clearly to define that power by an alteration of the deed. By the deed, as originally drawn, it was also required that the acts of one meeting should be confirmed at a subsequent one; and the alteration in the clauses proposed by the directors was, that any resolutions passed at any meeting legally convened should be considered as final, without the formality of a second meeting for confirmation, provided it be stated in the notice that no such second meeting would be held—and giving power to issue preference shares.—Resolutions to this effect having been put and seconded, were carried unanimously.

Mr. HEAD then read the resolutions for raising the new capital, the substance of which we gave in the report of the annual meeting in the *Mining Journal* of the 27th June last—viz.: that 14,000 shares be issued at 3*l.* per share, payable by instalments of 1*l.*, on August 6, Sept. 28, and Nov. 20; the present shareholders to have pre-emption until the 13th inst., when the directors are authorised to offer them to the public. Shareholders to be entitled to one share for every old share held by them; the whole of the 3*l.* per share to be returned out of earliest profits, previous to any dividends being paid on the old shares. If 5000 new shares be not taken up, the money to be immediately returned; but if that number, or above, be taken, the directors are authorised to proceed with the operations and allotment of shares, but not on terms less favourable to the company than those specified in the resolutions.

The CHAIRMAN then observed, that the present favourable position of the mine was so palpable, and its advantages had been so fully discussed, that he had little further to say. He believed there never was a mine that gave greater promise, with so little spent upon it. It had been fairly opened upon, shafts sunk, levels and cross-cuts driven, an engine paid for, and all now ready for working, the whole of which expenses, with the exception of 5000*l.*, had been defrayed by the produce of the mine, and that only from one vein; while there were numerous others which could soon be explored, and which, it is believed, will prove equally productive. They were not sinking in an exhausted mine, to search for what riches the Mexicans might have left behind them, as they had done in the other Bolanos Mines, but here they had virgin ground, which held out most prosperous results. He alluded to Real del Monte, which, after refusal by the shareholders to form a new company, was taken up by the Mexicans for a sum of 26,000*l.*, covering all old liabilities, and the purchasers had immediately sold it to a company at a premium of 40,000*l.* It would, indeed, be a mortifying thing to find Bolanos, in which they could see their way much clearer than even in the Real del Monte, following in the same route.

In answer to Mr. Barclay (a scrip holder to the extent of 200 shares), Mr. JOHN TAYLOR stated, that if the mine turned out as they expected, the stores, machinery, and property would be worth what they cost, probably 40,000*l.*; if they abandoned it they would find it difficult to obtain any return for the property. Mr. Placci (the mine manager in Mexico) had a good opinion of the mine; 250,000*l.* worth of ore had already been raised; since the Bolanos Company had worked it, it had paid all expenses of opening ground, engine, machinery, sinking a shaft 120 fms., 8 ft. by 4 ft., lining, fixing pump work, and all other work, with the exception of 5000*l.* advanced by the company.

After some further conversation, in which the value of the mine appeared to be highly appreciated by all present, the resolutions for raising the capital were passed unanimously.

The CHAIRMAN requested those gentlemen who had made up their minds as to the number of shares they would take, to inform the secretary, for the guidance of the directors, and the encouragement of others. They had had a great many promises; the directors would take a large proportion, and he trusted they should be able to distribute 7000 or 8000 shares. It would not be desirable to issue them to the public, if they could avoid it.

A vote of thanks was then passed to the chairman and directors, and the meeting broke up.

HOLYFORD COPPER MINING ASSOCIATION.

At the general half-yearly meeting of shareholders of this company, held at the offices, Great Winchester-street, on the 31st July,

EDWARD HUNT, Esq., in the chair,

After the usual preliminaries, the following report of the directors was read:—

The directors beg to submit to the shareholders the balance-sheet and account of expenses and produce of the mines, made up to the usual periods:—

Referring to the foregoing accounts, the directors have still to regret the unprofitable working of the mines, although there has been some improvement in the produce, and but for the extra expenses of opening what may be called a new mine, at the Old Forge, there would have been but trifling, if any, loss; and it is their opinion that, from the present prospects, and at the reduced expenditure, some profit may be expected during the next six months. They would, however, refer to the following report of Captain John Lyle, from which they form their opinion:—

"*Holyford Mines, July* 25.—I herewith hand you my report on these mines for the last six months. We have driven the adit level north 7 fms.; the end is now in an elvan, with a large quantity of water. I hope, as soon as we get through this channel of ground, we shall have an improvement in the lode—at present it is small. We have driven the adit level on a lode which went off from the north lode, to the west of north, 10 fms. 3 ft. 10 in., where we had a lode for a great part of the distance, varying from 8 to 10 inches, solid ore: we have now a pitch working in the bottom of the level on this lode which will produce 60*l.* worth of ore per fm. The 10 fm. level north has been driven 10 fms. 0 ft. 8 in.; the lode has varied in size from 18 in. to 6 in. wide, and for several fathoms we have had a good lode, which will be sett for about 4s. in 1*l.* The 10 fathom level south we have driven 10 fms. 0 ft. 6 in.; the lode at this time is small; the pitch in the back, over this end, is looking well, and will produce about 80*l.* worth of ore per fathom. We are sinking a winze under this level, which is down 4 fms. 1 ft. 9 in., where the lode is at this time 1 ft. solid ore, and improving as we get down. The engine-shaft has been completed to the 20 fm. level, and sunk under that level 3 fms. 5 ft. 8 in.; the whim-shaft has also been completed to that level. The 20 fm. level has been driven north 11 fms. 2 ft. 6 in.; the ground has been hard, and the lode small. The 20 fm. level south has been driven 10 fms. 4 ft.; the lode has a promising appearance the whole distance, and producing some very good bunches of ore, which will work on tribute, as soon as the winze is communicated from the 10 fm. level, at about 4s. in 1*l.*; the lode in the end, at this time, will produce 25*l.* worth of ore per fathom.

"At the engine-shaft under the 20 fm. level we have a good branch of ore, 6 in. wide, solid, on a branch west of the lode, and also stones of ore in the ground between the branch and the lode; according to the underlay of the lode in the 20 fm. level, they will come together about the 30 fm. level, and as we shall then be down in a settled country, I hope we shall have a good course of ore. The winze under the 17 fm. level has been sunk 4 fms. 2 ft.; the lode in the bottom of the winze is 1 ft. wide—a good lode, and will work at a moderate tribute as soon as we can get a level under it; the first shaft has been sunk 3 fms. 4 ft. 6 in. The pitches throughout the mine are looking well. Old Forge engine-shaft is sunk to the 20, and the 20 driven east 2 fms. 4 ft.; where the lode is in a disordered state; and we are obliged to discontinue driving this level, not having sufficient water for the wheel. The 10 fm. level has been driven east 31 fms. 3 ft. 8 in.; in the last 8 fms. the lode has varied from 7 ft. to 4 ft. wide, with a large quantity of greens and spots of ore; it is now 4 ft. wide, of the same character, and, from its appearance, I should think we cannot be far from a course of ore; in driving this level we cut a branch south, of a very good appearance, 1 ft. wide, and as soon as we can communicate the shaft in the eastern hill, we intend to open on it; at this time we cannot do so, not having air to proceed with the two levels. From the improvement in the engine-shaft, and also in the 10 fm. level at Old Forge, I hope the next half-yearly report will be more flattering than the present.—JOHN LYLE."

The arrangement made with Low's Patent Copper Company proceeds satisfactorily, and shows results from the produce of the mines considerably exceeding what would have been obtained at the public ticketings.

The report of the directors was approved and confirmed, and thanks voted to the chairman and directors.

RUNNAFORD COOMBE MINING COMPANY.

At a meeting of adventurers, held at the Black Eagle, Woolwich, on the 23d July—THOMAS CANHAM, Esq., in the chair—the accounts were examined and passed, showing—Balance last account, 170*l.* 4s. 9d.; on calls, 43*l.* 5s.; tin sold, 6 tons 10 cwts. 3 qrs. 15 lbs., at 47*l.* 17s. 6d.=308*l.* 10s. 3d.; together 522*l.*; by labour cost, May, 162*l.* 8s. 1d.; ditto June, 172*l.* 12s. 4d.; lord's dues, 20*l.* 11s. 8d. leaving a balance in hand of 166*l.* 7s. 11d. A call of 5s. per share was made, and it was resolved, that if calls made prior to 16th January are not paid by 6th August, steps will be taken as may be required; that Mr. Morris's resignation as treasurer be accepted; and that Messrs. Henderson, Canham, and Phœnix, be the joint treasurers. The following report was read:—

July 23.—Since our last meeting we have made some very important discoveries. Two lodes have been discovered, one to the north, and the other to the south of the lode that we have been working on. The newly-discovered north lode is from 3 to 4 ft. wide, composed of capel, peach, prian, spar, and tin, worth from 15*l.* to 20*l.* per fathom for tin. We have commenced a cross-cut 25 fms. to the west of Morris's shaft, by four men, at 2*l.* per fathom, to intersect this lode at this point, where there is every indication of cutting a good lode; this lode being intersected by a cross-course at this point, and the

fm. The 40, west on Cock's branch, is opening moderate tribute ground. All other places are much the same as when last reported.

LAMHEROOE WHEAL MARIA.—There is nothing new to add to the last report. The sinking is continued with all possible vigour, and the exact depth of each shaft is as follows:—Engine, 56 fms. 4 ft.; Davey's, 47 fms. 1 foot. Both the lode and cross-course have been cut through in the engine-shaft, and the work is now being continued through the killas.

MENDIP HILLS.—I have no particular change to report in the appearance of the beds of slagstuff in Charterhouse Valley, being about 16 ft. thick, producing some good quality slags. The beds of stuff which we are at present laying open in Blackmoor also look remarkably well, even better than we expected to find them. We continue to press forward with the necessary erections in this part of the company's property, and hope, if all be well, to see it in operation in about 10 or 12 days from the present date. The reverberatory furnace is completed, and fire lit in the same; we, therefore, hope to see it thoroughly dry, and in a fit state to commence smelting by this day week.

NANT-Y-CRIA.—The shallow adit, to drive west on the new lode, by four men, 4 fms. sient, or the month, at 4*l.* 15s. per fm.—drove last month 3 fms. 5 ft. 7 in.; the ground is getting stronger, with less gossan and more blende in the lode, and I think the lode is looking more kindly than for some time past. We have finished cutting down the new shaft from the surface as low as the deep adit, and, previous to the rods, &c., being erected, we are thinking to put the shaftmen to clear out the deep adit west of the dressing-floors, in order to take up the water, and to see how the lode is looking in the present end.

RHOSWIDDOL AND BACCHEIDDON.—Nant level adit is poor. One party who were at work here, I have removed to the cross-cut, from the Smithy level, into the Augustus's stope. The 10 fm. level has been good for lead till Saturday, but is poor now. The two stopes in the back of the 10 fm. level are yielding good ore; the bottom of the 10 fathom level is better than ever. The 17 fathom level has been driving through poor ground for the last fortnight; but has just entered into the good course of ore in the bottom of the 10 fm. level. The stope in the back of the 17 fm. level is good. Smithy level looks well; the end is in good ore. A bargain will be let to stope behind the end; four men are crossing from the Smithy level to Augustus's stopes; Augustus's stope looks exceedingly well, and the lode is very strong. I send you samples of lead from it to get assayed. We have 15 tons of ore ready to ship.

SOUTH TAMAR.—The shaftmen have been principally employed in clearing the bottom, or 101 fm. level; they are now set to sink the shaft 2 fms., cut tip plat, and put in cistern and bearers, at 40*l.* per bargain. The 101 fm. level has been cleared and secured 23 fms. 5 ft., and the east driven 1 fm. 4 ft. north of the shaft; the lode in the end is 2½ ft. wide, kindly, but not producing much ore; the same level, south of the shaft, has been cleared and widened for 17 fms. 5 ft., and to within 3 fms. of the end. The lode in the end is 2 ft. wide, with a branch of good ore*y* work about 10 in. wide. The 90 fm. level has been extended south 5 fms. 5 ft. 9 in.; the lode has produced, on an average, 9 cwts. of lead per fm., and in the present end will yield the same quantity. The 80 fm. level has been extended 8 fms. 2 ft. 9 in.; the lode is 3 ft. wide, easy for driving, and worth full 9 cwts. of lead per fm. The winze in the bottom of the 80 fm. level has been sunk 8 fms. 1 ft. 9 in.; the lode is 2 ft. wide, and has produced good rich work, being now worth 10 cwts. per fm.—this winze will be down to the 90 in a few days, when we shall drive back to meet the forthcoming end. The 40 fm. level has been cleared 23 fms. 6 in. during the past month, but we have not yet reached the end. The 30 fm. level has been driven south 4 fms. 3 ft. by the side of the lode, and the cut through it has produced very rich work for silver. The pitches set are as follows:—Back of the 101 north, by four men, at 10s. for lead; 90 south, ten men, 7s. and 10s.; 80 south, 24 men, 10s., 7s. 6d., 9s., and 10s. I have much pleasure in saying that the mine has greatly improved during the past month, and there is every prospect of increasing the returns.

SOUTH WALES MINES.—The Bodcoll deep adit, to drive east on the course of the lode, by four men, 4 fms., or the month, at 4*l.* per fm.; the lode is 18 in. wide, composed principally of slate, gossan, mundic, copper, and a little lead, but not sufficient to put a value on. The Dowin deep adit, east of the Rhydnant river, on the course of the lode, by two men, 3 fms., or the month, at 2*l.* 15s. per fm.; the lode is 6 ft wide, composed of slate, good gossan, quartz, mundic, copper, and lead, looking kindly.

SOUTH WHEAL TRELAWNY.—The ground in the engine-shaft, sinking below the 30 fm. level, is not so favourable as we have had it during the last month. We have sunk 6 ft. 6 in., cut plat 8 ft. by 10 ft., divided and cased down the shafts, &c., and have had the misfortune of breaking two windbores. The first will do for a standing lift, but the other was bad casting, and we have a new one in its place, so that we have only to regret the loss of time it has occasioned.

TAMAR SILVER-LEAD.—The lode in the engine-shaft is 18 inches wide, composed of flookan and mundic, with some ore. In the 190 end the lode is 2 ft. wide, composed of capel and ore, but not rich. In the 175 end the lode is 2½ feet wide—capel and ore, good saving work. In the 160 end the lode is at present poor. In the 145 end the lode is 3 feet wide, composed of can, mundic and ore, of a coarse quality. In the 135 end the lode is 2 feet wide, very good saving work. Our pitches continue to look well. At North Tamar, in the 80 fm. level the lode is 6 in. wide, composed of can and mundic. In the 70 end south the lode is 18 in. wide, composed of finor-spar and ore, saving work; in the north end of ditto the lode is 2 ft. wide, producing good stones of ore. We hope to sample on Saturday, the 4th of August, about 95 tons of rich silver-lead ores.

TINCROFT.—At Palmer's shaft, on East Pool lode, sinking below the 90, the lode is 2 ft. wide, with spots of copper ore; the lode in the 90 west is 1½ ft. wide, with occasional stones of ore. In the 80 fm. level west the lode is 4 feet wide, worth 8*l.* per fm. for copper. In the 70 fm. level west no lode has been taken down since last report. In the 36 fm. level, driving west towards Stainsby's shaft, the lode is 1 ft. wide, with spots of ore. In the 24 fm. level west the lode is 15 in. wide, with good stones of ore; the stopes in the back of this level are worth 35*l.* per fm. for copper. At North Tincroft, in the engine shaft sinking below the 100 fm. level, no lode has been taken down since last report. In the 100 fm. level east the lode is 3½ ft. wide, worth 10*l.* per fm. for copper; in the 100 fm. level west the lode is 3 ft. wide, worth 9*l.* per fm. for copper. In the 90 fm. level east the lode is 2½ ft. wide, worth 9*l.* per fm. for tin and copper; the 90 west is worth 10*l.* per fm. for copper. In the 80 fm. level, east of Willoughby's, the lode is 5 ft. wide, worth 10*l.* per fm. for tin. On Highburrow, in the 152 fm. level, east of engine-shaft, the lode is worth 10*l.* per fm. for tin. In the 142 fm. level, east of Martin's east shaft, the lode is worth 12*l.* per fm. for tin; the stopes in the back of this level, east and west of the shaft, are worth 17*l.* per fm. for tin. In the 132 fm. level, east of Martin's east shaft, the lode is worth 18*l.* per fm. for tin; the lode in the west end, same level, is worth 11*l.* per fm. for tin; the stopes in the back of this level, east and west, are worth 18*l.* per fm. for tin. In the 120 fm. level, west of engine shaft, the lode is 4 ft. wide, worth 11*l.* per fm. for tin. In the 110 fm. level, driving east from Cook's Kitchen, the lode is 2½ ft. wide, worth 5*l.* per fm. for tin. On Chapple's lode, in the 100 fm. level, west of Downright shaft, the lode is worth 17*l.* per fm. for copper. The 90 west is worth 25*l.* per fm. for tin and copper. In the 80 west the lode is 3 ft. wide, worth 10*l.* per fm. for tin and copper. At Wheal Providence, the lode in the engine-shaft, sinking below the 33 fm. level, is at present poor.

TREBELL CONSOLS.—This mine is in the parish of Lanivet, in the county of Cornwall, and has length on the line of the lodes about 420 fms.—in the tin department a greater length can be had, if required. This mine, formerly named Beacon, was abandoned about 12 years since; it was worked about three years (it had been worked previous to the last working), during which period several tons of tin of a superior quality was raised. The principal part of the workings were on the top of the hill before named, and were carried on by working two lodes only a few fathoms below surface; the greater part of the workings are filled up, but the lodes are still visible, those already spoken of being 30 fms. distant. The northern lode is from 2 to 3 fms. wide, to be seen about 6 ft. from surface, and composed of capel, granite, gossan, and tin—the stratum is soft decomposed granite. From information, this lode has been wrought on about 5 fms. below surface; the water was drawn from this part by horses. The southern lode is about 5 ft. wide, composed of capel, spar, and granite, and producing tin of superior quality—this lode can be seen 9 ft. below surface. Nearly all the stuff raised from there lodes has been stamped, although the stamps then employed were at a great distance; the carrier's price for carriage to stamps was 9s. per 100 sacks. About 100 fms. east of these lodes, before spoken of, old workings have been opened, which were sunk about 2 fms. below the surface—this does not appear to be either of the former lodes, it being about 20 fms. further south than the southmost before named, and, according to its present direction, will form a junction with it 110 fms. further east; this lode is about 2 ft. wide, composed of spar, capel, granite, and tin. There are at present two men employed in this department, and although not more than 15 ft. below the surface, they can get good wages on the quantity of tin they can raise; and if an adit was brought home, they could make a profit to the adventurers, even at the present depth. About 150 fathoms east of this, and about 130 fathoms north, an adit has been taken up in the former workings, intended to intersect these lodes; it has been carried into the hill by the former adventurers 100 fm., three shafts have been sunk on it; one lode has been intersected, which is about 6 ft. wide, composed of capel and spar, with a small quantity of tin. Some excellent tinstuff was raised by the last adventurers, but the mine soon after was abandoned. The cross-cut south is about 10 fms. south of this lode; it is now intended to drive this cross-cut to intersect the remaining lodes, and, according to the plan which is to form the longitudinal section of the lodes as opened on, there are 30 fms. at most to drive to accomplish this; the depth at the intersection will be about 22 fms., and, by driving west, will quickly increase to 30 fms. deep, the drivage of this cross-cut heretofore has been in killas, which is bordering on the granite—at present the end is in elvan, which is not expected to continue long, its direction being nearly westerly and easterly. This elvan course argues well for the speculation—they are often found to exist in mines, particularly tin mines. I believe an elvan course runs through the Great Polgooth Mine, and nearly parellel with the lodes. I have seen it in St. Austell Consols Mine, which is west of Polgooth and parrellel with Hewas. The driving this cross-cut, to intersect the lodes before named, is an important object, as it is very likely to prove beneficial, particularly as the tin makes shallow where it has been opened on. On the hill before named, and near the north lode, is soft decomposed granite, much like porcelain clay—this is good work for tin, and would well pay for washing, if water was near; and it is my opinion that, if a steam stamps was erected in this part of the sett, the lodes would pay at the present depth—viz., from 6 to 9 ft. below the surface. The stratum in this part of the mine is much like that in Beam Tin Mine, in St. Austell, and Lanet, only in Beam the lodes are not so large. In the northern part of this mine, Lanivet Consols and Tretoll lodes pass through (as may be seen by plan). To work this effectually some other land must be obtained, which may be also seen on the plan. This may not, perhaps, for the present be put in operation, but I have no doubt of its being a set worthy of attention hereafter; this, however, cannot be worked much without a steam-engine, and will, doubtless, be further considered. But, as to the tin department, it does scarcely appear a speculation, only as to driving to intersect the lodes in the cross-cut, which, by the present appearance of the strata, may be expected to range from 3*l.* to 5*l.* per fm. A small outlay will accomplish it, and a steam stamps is very likely to be all that will be afterwards wanted for a long time, and from present view the only outlay that will ever be wanted, as it could pump as well as stamp, if erected on the hill, or any other part of the sett. I might have said, that the lodes of Tretoll and Tregolian were productive lodes—Tretoil lode having realized about 64,000*l.* worth of copper ore; Tregollan lode 30,000*l.*; Wheal Messin lode is Tregollan lode, and also sampled large quantities of ore—the two last mines have good courses of ore at present, although idle.

TREGORDEN.—In cutting into the western side of the 12 fm. level north, 44 fms. from the engine-shaft, and about 5 fms. behind the ends, we have discovered the main part of the lode, which is 15 in. wide—9 in. being richer work than any yet seen in the mine, worth about 15*l.* per fm. A sample of the smalls, having been cleaned on the shovel, has produced 13 cwts. of pig-lead to 20 cwts. of ore, and 160 ozs. 4 dwts. of silver to the ton of ore; and a stobe of the work undressed has produced 9 cwts. 2 qrs. 14 lbs. of pig-lead to a ton of ore. We have opened on it about 6 ft. in length; and, from its appearance, it is likely to continue both north and south. The 20 fm. level now driving north, we intend to force with all possible speed towards this discovery; the stopes are turning out tolerably well. We sampled, last Wednesday, 5½ tons of rich ore, which are to be sold on the 31st July; and we are getting on well towards the next sampling.

TRELEIGH CONSOLS.—Garden's shaft, below the 113 fm. level, is sinking in the country, and is down 8 fms, 4 ft. below the 113 fm. level. In the 90, west of ditto, the lode is 18 in. wide, worth 3*l.* per fm. In the 80, west of ditto, the lode is 20 in. wide, worth 10*l.* per fm.; in the 60 fm. level, east of the cross-cut, the lode is 1 ft. wide with good stones of ore, and is looking kindly; in the 80 fm. level west, on the north part, the lode is 1 ft. wide, with stones of ore, and is promising from this level. The 70 fm. level, west of Garden's shaft, is suspended for the present. We have set a winze to communicate with the 90, at 4*l.* per fm. In the 60 fm. level, west of ditto, the lode is 3 ft. wide, with stones of ore. At Wheal Parent, the engine-shaft, below the 30 fm. level, is sinking in the country south of the lode; in the 30 fm. level, east of ditto, the lode is 2 ft. wide, worth 10*l.* per fm.; in the 30 fm. level, west of ditto, the lode is 18 in. wide, worth 3*l.* per fm. In the 20 fm. level, west of ditto, the lode is 1 ft. wide, with stones a fore. In the whim-shaft, below the 12 fm. level, the lode is 20 in. wide—some ore, and is looking very kindly. Nicholson's shaft, on the middle lode, is below the surface; this shaft is now holed to the adit, and the men are to timber the shaft from the surface to adit for 7*l.*

WEST WHEAL JEWEL.—The winze in the bottom of the 57 fm. level, west of Williams's cross-course, on Wheal Jewel lode, is communicated to the rise in the back of the 70 fm. level in the past week. In the 47 fm. level, west of Williams's cross-course, on same lode, lode not taken down in the past week. In the deep adit, west of Williams's cross-course, on the same lode, the lode is producing stones of ore. In the deep adit, west of Tregoning's shaft, on Tolcarne tin lode, the lode is producing stones of tin. In the stopes in the back of the 12 fm. level, west of Pryor's winze, on Tolcarne tin lode, the lode is worth 12*l.* per fm.; in the stopes in the back of the same level, east of Pryor's winze, the lode is worth 9*l.* per fm. In the stopes in the bottom of the 12 fm. level, east of Tregoning's shaft, the lode is worth 13*l.* per fm.; in the stopes in the bottom of the above level, east of Tregoning's winze, the lode is worth 16*l.* per fathom. These stopes are working on tribute.

WHEAL BENNY.—In the south adit level east the lode is 2½ ft. wide; this lode, you are aware, when first cut, was 4 ft. wide; it then, after a few fathoms driving, split into several small branches; these are now united, and the lode looks much more promising for tin. On the Benny lode there was a winze sunk below the adit by the former party, but to what depth we cannot exactly ascertain; this winze is now being drained by the Lamheroce cross-course, so that shortly we may expect to see and ascertain the character of it at the bottom, from which point some fine stones of ore were raised, and are now at the surface; this we can do without increasing our hands. The Ford shaft is not yet drained; the water is a little below the 20 fm. level.

WHEAL MARY ANN.—Pollard's shaft is sunk 3 ft under the 50 fathom level, where the ground is still unfavourable for sinking; the lode in the 50, north of this shaft, is 2 ft. wide, and worth 5*l.* per fm.; in the same level south the lode is 2 feet wide, and worth 4*l.* per fm.; the stopes in the back of this level are yielding a fair quantity of lead. The lode in the 40, south of this shaft, is 1½ ft. wide, producing good stones of lead; the lode in the rise in the back of this level, is 1 ft. wide, producing good stones of lead. The lode in the 30, south of this shaft, is as last reported; the winze under this level is suspended, in consequence of an increase of water, but we expect to hole it from the rise, in the back of the 40 fm. level, in the course of a few days. At Barratt's shaft, the winze under the 50 fm. level, north of this shaft, is holed to the 60 fm. level, where the lode is 1½ ft. wide, and worth 7*l.* per fm. Barratt's shaft is sunk 2 fms. under the 50 fm. level, where the lode is 2 ft. wide, and worth 14*l.* per fm.; the lode in the 50, south of this shaft, is 4 ft. wide, and worth 12*l.* per fm.; the stopes in the back of this level are producing a fair quantity of ore. The stopes in the back of the 40 fathom level, south of this shaft, are producing a fair quantity of ore. On Saturday last we sold a parcel of lead ore, computed 62 tons, to Messrs. Sims, Williams, Neville and Co., at 17*l.* 19s. 6d. per ton.

WHEAL TRESCOLL.—Our north and south lodes are still producing good work for tin of the richest quality. We sold a parcel last week, and had the highest price of any mine in the county—only 10s. below the best grain tin price. We are getting on as fast as possible with the wheel pit for the 48-feet wheel to stamp with; the castings are nearly all finished, and I think there is no doubt that the stamps will be at work at the time named to one of the committee and principal adventurers, Mr. Denny, of Coggeshall, Essex, when there a few days since, who expressed himself satisfied with the machinery and appearance of the mine, and is quite confident, after we have the large stamps at work, that the mine will make large profits to the adventurers, and gave orders for the erection of the large wheel and stamps immediately. The engine shaft is still sinking in good ground.

WHEAL TRELAWNY.—At Phillips's shaft, the 82 fm. level cross-cut is driven about 10 fms. east; the ground continues as was last reported. The lode in the 72, north of this shaft, is 1½ ft. wide, and worth 10*l.* per fm.; in the same level south, the lode is 1½ ft. wide, and worth 9*l.* per fm.; the stopes in the back of this level are producing very favourably. The lode in the 62 north is 5 ft. wide, and worth 18*l.* per fm.; the stopes in the back of this level are very productive: the lode in the winze sinking under this level south is 2½ ft. wide, and worth 10*l.* per fm. At Trelawny shaft, the 72 fathom level cross-cut is driven westward 6½ fathoms. The lode in the 52, north of this shaft, is 3 ft. wide, and worth 14*l.* per fm.; the stopes in the back of this level continue to be fairly productive. The stopes in the back of the 42 north are also fairly productive; the lode in the winze under this level is 2 ft. wide, and worth 12*l.* per fm. At the north mine, the lode in the 55, north of Trehane Mine, is 2 ft. wide, and worth 5*l.* per fathom. The lode in the 45, north of Trehane, is 3 ft. wide, and worth 7*l.* per fm. Smith's shaft is sunk 5 fms. under the 40 fm. level; the lode in the bottom of this shaft is 3½ ft. wide, and worth 7*l.* per fm. The lode in the 40, south of this shaft, is 2½ feet wide, and worth 7*l.* per fm.; the stopes in the back of this level are usually productive. The lode in the 40, north of this shaft, is 2 ft. wide, and worth 5*l.* per fm. The stopes in the back of the 30 fm. level are also usually productive.

WHEAL VINCENT.—The south lode is still continuing productive, producing fine work indeed. The north lode is just as last reported on—moderate stamps work. We are using every means to get the stamps completed by the time I mentioned in my last. I have received the agents' reports, which I shall produce at the meeting.

FOREIGN MINES.

BAROSSA RANGE MINES—*Angaston, April* 16.—At Lyndoch Valley, last Wednesday, we holed our new shaft (called Mary's shaft) to Simon's shaft, by a 7 fm. cross-cut. We have now good air, and are denuding or uncovering the ore part of the lode; and I think, in a month or six weeks, we shall have several tons of good ore broken. I have just returned from the Bremler Mine, Mount Barker, where we have a shaft down 6 fms. (called Betsey's shaft), at the bottom of which a good lode is appearing. When I left the men had cut into it about 2 ft., at which point good ores were raising. The per centage is about 27, but not then through the lode. This is promising—and I expect, from the ores now in sight, that a large and good portion of copper ores will be broke. This lode is running nearly east and west, and close to it are a great number of branches running north and south, all bearing good saving work for copper. The shaft is sunk on the course of the lode, each end of which will pay for working from top to bottom. We are not likely to cut water until down 20 fms. in any part of the old workings; and, as there are several lodes in 50 fms. width, we are warranted to hope for profitable ore ground, especially at or near Betsey's shaft. I would write cautiously, because lodes in this colony are very changeable; but I think we shall not be disappointed in expecting a pretty large deposit of ores in this place. We have shipped on board the *Royal Archer*, at 66s. per ton, about 35 tons of good copper ore, and have four tons more ready, but I hear the drays will not be down in time for the vessel. When the bill of lading is sent up, I will write you the particulars of the quantities, number, and marks of bags, &c. In two months' time, weather permitting, we hope to make another shipment.

LINARES LEAD MINES.—[Extract of a letter from Mr. Henry Thomas, dated Linares, July 10.]—I expect we shall be able to examine the first level of the mine soon; the water is down about 18 fms. from surface, and the first level 15 fms.; though the upper part of the mine has been worked away, yet I am anxious to verify the statements made, and to see as soon as possible what part of the workings are applicable for our future operations. The price of lead is less here than in England; but after having unwatered the mine, we shall work with many advantages, moderate royalty, and cheap labour (Spanish), which, so far as I can judge, is very good in this district, and the men willing and industrious.—[The cargo of the *One and All* arrived.]

IMPERIAL BRAZILIAN MINES.—Gold report from—

Gongo Soco, from 14th to 22d May	*Lbs.*	2	1	7	0				
Bananal, ditto ditto		1	9	4	0	3	10	11	0
Total from Jan. 1—Bananal	*Lbs.*	83	8	14	0				
,, Gongo Soco		72	9	19	0	156	6	13	0

NATIONAL BRAZILIAN MINES.—*Cocaes, May* 23.—The ground in the eastern end still continues favourable; it is for the most part composed of chlorite slate, and that not very hard for boring, so that a communication to Irving's Mire may yet be effected earlier, and with less difficulty, than we expected it would have been done.

Cocaes province, May 13 to 23	*Mrs.*	3	2	0	30	
Cuiaba ditto, May 16 to 26		1	6	7	20	*Mrs.* 5 0 7 50

ST. JOHN DEL REY MINES.—*Morro Velho, May* 28.—Gold extracted to date, 15,043 oitavas, from 885 4-10ths cubic feet of sand (result of 21 days' stamping) =17 oits. per cubic foot.—Stamps working 27 days, average 93·52 heads.—The supply of stone continues to be affected by the same causes latterly referred to. Already this month we have brought in upwards of 500 tons from the refuse heap, which, I am sorry to observe, is fast disappearing. Just now the supply from the mine is further affected by the almost total desertion of our Brazilian borers, who are enjoying the holidays.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

BIRCH TOR AND VITIFER.—During the last week, the 160 1-280th shares, which were in the hands of the company, were offered by tender to shareholders only, with an intimation that less than 5*l.* per share would not be accepted; but the recent discoveries in the old Vitifer lode, both east and west, under the great workings of the ancients, created such a demand, that tenders for 275 shares were received, varying from 5*l.* to 5*l.* 12s. 6d., and giving an average of 5*l.* 8s. 9d. per share; and, during the current week, 5*l.* 10s. and 6*l.* have been offered, but holders are firm. Offers have been received for over 50 since the tenders were opened; this will more than free the mine from debt.

At **EAST BULLER**, they have cleared up the shaft and shallow adit, where a fine gossan lode has been found, varying from 3 to 5 ft. wide for 105 fms. in length, and every appearance of a good and productive mine is presented.

HENNOCK IRON AND TIN MINE.—This sett, about a mile long from east to west, and half a mile wide, is situate at Hennock, 12 miles from Exeter, and 5 miles from the port of Teignmouth, nearly the whole formation of which is a decomposed granite, said to be highly productive in metalliferous deposits, particularly having an unlimited quantity of rich micaceous peroxide of iron, yielding 50 per cent. of iron, of a very superior quality for the manufacture of steel. A lease is held for 21 years, at a standard rent of 300*l.*, without other dues. From one lode, averaging 7 feet wide, at a depth of 10 fms., 16,000 tons of this iron ore have been raised, and can be continued, at a cost not exceeding 2s. per ton, and it is estimated that 2000 tons per month may be disposed of, realising a profit of from 4000*l.* to 5000*l.* per annum. The Bovey lignite is in the immediate vicinity, and may hereafter prove highly valuable for smelting purposes. Tin has also been found in a distinct lode from the above; and from the reports of several respectable mine agents attached to the prospectus, the mine, appears to give promise of being highly valuable. It is proposed to divide it into 4500 shares, at 2*l.* 2s. per share, no further call to be made.

WHEAL ARTHUR.—This is an extensive sett, situated in the parishes of St. Allen and St. Erne, being about two miles from the the celebrated East Wheal Rose, having the same, or, at least, parallel, lodes, and gives hopes of returning large quantities of ore. The lords are the Ecclesiastical Commissioners and the Bishop of Exeter, and the present depth is only to the adit level, which has been extended on a highly promising lead lode for a distance of 190 fms. On Monday, the 23d July, about 30 persons from the neighbouring towns of Hayle, Penzance, &c., attended to witness the setting to work the new steam-engine erected for draining the mine; the machinery was manufactured by Mr. West, of St. Blazey, and worked highly satisfactory, after which the company sat down to a sumptuous and substantial dinner, provided in a tent on the grounds. The usual toasts were drank with enthusiasm, as were those of the bishop, Mr. Treffry, and other mining benefactors. The workmen were regaled with a good dinner of beef and plenty of ale, and the afternoon was passed in high glee and good feeling. The prosperous working of this mine, and the consequent employment of the population, is anxiously looked for in the neighbourhood.

AUSTRALIAN MINING COMPANY.

The annual general meeting of shareholders in this company was held at the offices, Adelaide-place, London-bridge, on Monday last, July 30th.

JAMES HORNE, Esq., in the chair.

Mr. JOSEPH (the secretary) having read the notice convening the meeting, the CHAIRMAN observed that, expecting rather a numerous attendance of shareholders on the occasion, the directors, thinking it probable the room they were in would be inconveniently crowded, had engaged a room at the Adelaide Hotel, just by, to which he should feel obliged by the meeting adjourning. He should not have troubled them, but it was necessary to read the notice in the room advertised.—The meeting accordingly adjourned to the large room at the Adelaide Hotel, when Mr. JOSEPH read the minutes of the last meeting, which were confirmed, and the following

DIRECTORS' REPORT.

The directors of the Australian Mining Company present to the general meeting of shareholders their fourth annual report, and congratulate them on the great and successful development of their property in the past year. During this period the workings of the mines at Tungkillo have been pushed forward with the utmost vigour; the very laborious and expensive undertaking of driving the deep adit is now effected to the extent of 180 fms., and a tram-road is laid down 150 fms.: by the completion of this operation, and the holing of the several winzes to the 40 fm. level, where it is intersected by the adit, the mine has been brought into general and effective working; Capt. Phillips has always had this object in view, to the exclusion of any temporary display, and your directors hear from all sides that it is the general opinion in the colony, fully substantiated by Major Campbell, that the Tungkillo Mine has been well opened, and is now in a most prosperous working condition Capt. Phillips refrained from recommending any large outlay for machinery, until he had thoroughly proved the mine; it is, therefore, a matter of very great congratulation to the directors that he has thought its prospects sufficiently encouraging, and the indications of a lasting mine so strong, as to induce him to send home a requisition for steam power, pit work, and other machinery for three shafts, sufficient to take the mine down 100 fms. below the adit, together with a general supply of mining implements and stores. Your directors, fully convinced of their captain's practical ability, and cautious mode of proceeding, and well aware that a deep mine cannot be effectually worked without steam power, have lost no time in carrying out his views: after the fullest consideration, the whole order has been executed by contract, in the very best manner, and is now on its way to the colony. An engineer and engineman have likewise been engaged, in pursuance of Capt. Phillip's request, and have gone out with the engines. It is also gratifying to state, that the captain has confirmed his opinion of the permanent character of the mine, by sending for his wife and family to join him there.

The machinery and the expenses contingent thereon have cost about 6000*l.*, an amount of outlay small, as compared with the value of the property, which Capt. Phillips, in a letter dated so far back as the 4th November, estimated at 200,000*l.*, with the prospect of a greatly improved annual value.

The ore shipped per *Branksemoor*, mentioned in the last annual report, has been sold, and has realised a profit of 1600*l.*, or 12*l.* per ton. A cargo of 200 tons has just arrived by the *Harpley*, and is likely to realise about the same amount; while the stock of ore at Adelaide, on the 7th April, was 63 tons, above 26 per cent., and 300 tons available for smelting in the colony.

Your directors have the satisfaction to announce the safe arrival in the colony on the 23d January, of Major Campbell, the company's general superintendent, from whom advices have been received to the 18th April; and the board have great pleasure in stating their belief, that from the earnest manner in which he had entered on his duties, and the great ability displayed in carrying out his instructions, Major Campbell will fully accomplish the wishes, and support the interest, of the proprietors. The following extracts from his several letters will be read with lively interest. In speaking of his first visit to Tungkillo, he says, under date the 7th of February:—

"I found the mine had been worked in a masterly and effective manner, and much praise is due both to Capt. Phillips and to Capt. Dennis, his predecessor in those operations. I inclose you a copy of Capt. Phillips's report of the 25th January, by which you will perceive that the holing of the deep adit, hitherto termed the 40 fm. level, into Baker's lode, has been effected. Some very fine copper has been taken from the lode in adit; and it is Capt. Phillips's intention to drive therein two short cross-cuts, so as to intersect Anstey's lode a short distance from its junction with Baker's lode. Captain Phillips appears to entertain full confidence that this operation will result in the development of a strong body of copper ore, an opinion in which I am disposed to coincide. The quantity of ore upon the floors will be specified in Capt. Phillips's reports, and I have pressed upon him the necessity of sending this down with all possible speed. There remains also a considerable quantity of inferior ore, which it is conceived will scarcely be worth the expense of shipment to England, the ultimate disposition of which will be matter for future consideration; most probably it will have to be smelted in the colony. The utmost harmony and good feeling appears to exist among the miners and the officers of the company, not a single complaint having been offered, and the setting bargains were cheerfully taken at the captain's prices. After a careful examination of the books and stores of the clerk of the mine, Mr. Solly, I have great satisfaction in bringing under the favourable notice of the board the extremely correct and methodical plan which this gentleman has adopted in his office. I avail myself of this opportunity of likewise reporting to the board my high opinion of Capt. Phillips's ability and fidelity to the interest of the company, and of recording my obligation to Mr. Borrow, the secretary, for the clear and satisfactory manner in which he has rendered me every explanation and information I have required, not only in his own department, but as connected with the general affairs of the company."

The following extracts from letters from Major Campbell to Capt. Phillips, dated 26th February and 3rd March, show how fully the new superintendent was bent on carrying out the wishes of the directors in concentrating the mining force on productive work:—

Extract, 26th Feb.: "We may now be enabled to concentrate our energies upon the Tungkillo Mines, and I cannot possibly give you a better guide for the course you should pursue, than by quoting the exact words of the secretary, dated London, 24th of June, 1848—'The board wish it to be clearly understood, that while they desire that the mines should, in Capt. Phillips's opinion, have every chance, they beg that the labour should be directed to those points presenting the most likely prospects of speedy return; and that any outlay for the purpose of experiment or exploring, be done in the most cautious and economical manner possible.' You will, with the above for your guide, at the same time, bear in mind how very costly our expenses already are at Tungkillo, and how needful it is to keep them down as much as possible, without impairing the efficiency of the workings, until, at all events, we are in a more paying position as to the quantity of ore raised. You have a long list of men who are under agreement with us; these ought of themselves, I incline to think, go far towards forming an effective working establishment. I am, however, so thoroughly satisfied with your zeal in behalf of the company, that I do not wish to fetter you with any further suggestions. Please to let me have a detailed plan of the mode in which you would propose to carry out the wishes of the directors, particularly stating the number of men to be employed over and above our establishment. Your last accounts from the mine continue to be very cheering."

Extract March 3: "I have duly considered your report of this date, and I approve of your recommendations, and request you to carry into effect the reductions proposed in the expenditure. As I view the sinking of Anstey's shaft to be one which, on the arrival of the steam-engine, will be of the utmost importance for the deep drainage of the mine, and as we have an unexpired contract for horse labour, which we cannot get rid of, you had better continue this work. You will be pleased to meet me on Friday next at Allan's Creek or Wheal Rothschild, when you will show me all the workings where trial has been made for copper ore, and any indications that may exist, and furnish me with your written opinion as to the expedience of continuing our workings there; bearing also in mind, that it is the main object not to be squandering our employer's money in idle seekings for what is only speculative expectation, but to devote the funds exclusively to what appears to promise a tolerable certain and speedy return. You are already in possession of my sentiments respecting the reductions to be made in the expenses at Montacute. You will, of course, use every exertion to economise as much as possible the incidental expenses of the company's mines, and I entertain great hopes that our next month's expenditure will be so reduced, while no work, the stoppage of which would be likely to impair the future efficiency of the mine is suspended, as to enable me to transmit a report which will be gratifying to the directors."

His letter to the board, dated 13th April, of which an extract is also made, gives the following cheering account of the special survey, and shows the zeal evinced generally by Major Campbell; and his last communication of the 18th April manifests the late and splendid progress made in the working at Tungkillo.

Extract of the letter dated April 13: "I beg to report, that on the 6th inst. I proceeded to Tungkillo, and have the pleasure of informing the directors that complete success has attended all our recent operations, having cut the lode in the cross-cut, supposed to be either Hagen's or Anstey's, being the continuation from where we have previously been stoping, which stoping still continues. We have a very large quantity of most excellent quality ore at grass and in the mine, among which are some blocks weighing from 6 to 12 cwts. each, three of which I propose to send home intact, in order to gratify the company with ocular witnesses that our lode is no petty string or vein, but a right substantial one, varying in width from 4 to 6 ft. My previous correspondence will have shown the directors that the pump at Wheal Rothschild was overpowed by water in February last, and that nothing short of a steam-engine will enable us to renew our operations on that lode, one which certainly is worth further trial when we have the means. As in sinking below the adit, or 40, at Tunghillo, we have been stopped by water, down to the level of which we have found rich ore, I have had the pump useless at Wheal Rothschild removed to Tungkillo, and as soon as Masterman's shaft is completed, we shall be in full play, descending to what will, doubtless, be the 10 fm. level below the adit, or 50 fm. level, working right and left on ore ground—this operation Capt. Phillips expects will be completed in all May. In riding over about 15 miles of the property, examining the new township, I found a valley or gully of good land, which will suit extremely well for a paddock for our horses, a plantation for the black poplars, and for gardens for the miners, a number of whom are anxious to rent from 2 to 3 acres each, at 1*l.* an acre; a gardener has agreed for 5 acres to form a market garden for supplying the miners, their families, and the township with vegetables. Of the 45 quarter acre allotments in the new township, 38 have already been taken at 1*l.* per annum rent each, and the remainder will be taken immediately; 23 cottages have been erected, or are in progress, at the expense of the allottees or tenants. The chapel is nearly completed, and will be finished very shortly, in a great measure by the voluntary contributions of the miners. I am looking for a letter from you with the particulars of your correspondence with the bishop. I shall very shortly establish a reading-room, and have already contributed a regular file of the *St. James's Chronicle*, for which I am told the people are very grateful; they are an orderly, well conducted little community, mostly Wesleyan Methodists, or Church of England, and most zealous and enthusiastic in their estimation of the character of the Tungkillo Mine. Fresh water is in abundance all the year round. Near the north end mine (where we are not operating at present) there is an excellent stone quarry for building purposes, and a lime kiln, there being an abundance of lime on the property. Timber for mining purposes is obtained by contract at 12s. per 100 feet, including carriage; it is not from our own land, but it is brought from a distance of 15 miles. We have some timber, gum tree (Encalyptus) and she oak, but neither of these are exactly suited for our underground purposes. We are going to experiment in making charcoal of the she oak. I shall, with an eye to futurity, plant young Acacias and gum trees, which latter grow rapidly for the first six years, and are then saplings of a fit size for what we require, and I am thus in hopes that long before timber becomes scarce in our neighbourhood, we shall find that our foresight has provided to hand a series of plantations which will supply all our

wards. Curiously enough as I am writing these words, the post has come in with a letter from Capt. Phillips, giving information of his having discovered plenty of timber within a mile of the property.—Most heartily congratulating the company upon our present glorious prospects, I remain, &c."

Extract, April 18:—"Our operations at Tungkillo continue most successful; 100 tons of rich ore may be calculated upon per month; this is Capt. Phillips' estimate, and he ought to be a judge of the quantity that can be extracted; the ore is there, and under command for upwards of 25 fms. A specimen of it has been assayed, and it yielded a produce of 59½, which may be taken as rather higher than the ore generally will average. Three splendid stones are on their way, destined to convince the directors and the shareholders by ocular demonstration, that our success is real and substantial."

"The quantity of ores raised from the commencement, averaging 26 per cent. produce, is 430 tons, with 300 tons of less produce, available for smelting in the colony—making a total of 730 tons."

As the copper market is recovering from its late depression, and affairs on the continent assume rather a more settled aspect, the company's imports will, it is hoped, arrive to a good market, and realize a handsome profit. Instructions have been given and the fullest information supplied to Major Campbell to guide him in smelting or disposing of the poorer ores in the colony.

In consequence of the opposition offered to any new importations of emery, owing to its having been for a number of years an article of complete monopoly, very limited sales have hitherto been made; your directors, however, believing the Tungkillo emery to be good, have determined to submit the stock remaining on hand for competition at public sale; a small quantity of superior character is expected by an early vessel.

A voluminous report of the cobalt discovery at Wheal Rothschild has just been received from Dr. Davey, of Adelaide, and has been referred to an eminent chemist here for his opinion thereon. But as the influx of water could only be counteracted by steam power the workings are suspended for the present; the property, however, is spoken of highly for agricultural purposes, several applications for allotments and farms had been made, and printed forms of leases were being prepared for tenants.

The expectations which the local committee entertained of the Montacute Mine not having been realised, the workings will be abandoned at the expiration of the lease, which is now nearly run out. The mine is now, however, being worked only on tribute, at no loss to the company, and with the chance of any improvement which may take place.

It has always been the studious wish of the directors to endeavour to abstain from making additions to the capital account; but, acting up to the feeling which they have ever observed to exist at the general meeting of the shareholders, that a sufficient sum should be employed to carry out the full wants of the company, they have made a call of 1*l.* per share, payable on or before Tuesday, the 21st of August, at the banking house of Messrs. Masterman and Co.

This instalment must be considered as differing from all previous payments, not being to prove a speculative property, but to work a successful mine, and the directors doubt not that the same will be cheerfully responded to on the part of the shareholders. The amount called up will liquidate all debts, pay for the machinery, and form sufficient working capital until the engines are fixed. From the stock of ore in the colony, and by the nature of Major Campbell's instructions, regular shipments will be made periodically, and it is confidently expected that the mineral resources of Tungkillo alone will hereafter pay the whole of the annual expenses of the company, and leave a handsome dividend for the shareholders.

Since the directors last met you, they have sustained a great loss by the death of their late lamented deputy-chairman, Hananel de Castro, Esq., whose connection with the company since its formation, and whose close and persevering attention thereto, gained for him universal esteem at the board, and secured the confidence of the shareholders. By virtue of the power vested in them by the Deed of Settlement, your directors have elected Charles Downes, Esq., in his stead, fully believing that his general business habits and well known honour and integrity will be found most serviceable to the company.

It may be as well to state that up to the present time neither the directors nor the local committee have received any remuneration for their attention to the interests of the company, and that your auditors have on each occasion declined to receive the grant annually made for their services.

Three directors go out of office by rotation this day, agreeably with the Deed of Settlement—James Horne, Esq., John Masterman, Jun., Esq., and G. E. Hodgkinson, Esq. These gentlemen being eligible, offer themselves, and are recommended for re-election accordingly.

Due notice has also been given for filling up the two vacancies occasioned by the decease of Hananel de Castro, Esq., and the retirement of John Capper, Esq., and the following gentlemen have offered themselves, both of whom are duly qualified—John Capper, Esq., for re-election, and James Ashwell, Esq.

Your directors submit the following motion in order to afford additional facility for voting by proxy at general elections:—That without prejudice to any other part of clause No. 35 of the Australian Mining Company's Deed of Settlement, or any other part of such deed, so much of the said clause, No. 35, as provides that no vote by proxy shall, in any case, be admitted, unless such proxy shall be in the form, or to the effect thereinafter set forth, be repealed, and made void; and that henceforth, votes by proxy shall (subject to the other provisions of the said clause) be admitted at any general meeting of the shareholders of the said company, whether such proxy be in the form or to the effect before mentioned or referred to, or in the form to the effect following, that is to say,—

"I, —— one of the shareholders in the Australian Mining Company, do hereby appoint —— to be my proxy, in my name and in my absence to vote in such manner as he shall think proper, at a general meeting of shareholders of the said company, to be holden on the —— day of ——, or at any adjournment of such meeting.

"Dated this —— day of ——, 18—."

The following is a statement of receipts and expenditure from July 4th, 1845, to June 15th, 1849:—

Masterman, Peters, and Co., cash account	£	989	13 5
Interest account		1,427	11 10
Stock account, mining land		23,170	0 0
Ditto office furniture		525	11 3
Preliminary formation expenses		834	17 11
Chartered ships account		122	2 2
Office expenses		5,135	5 5
Petty cash		25	6 10
Miners' wages		17,963	13 6
Insurance account		273	17 9
Local committee of management at their debit, for general expenses, in account		4163	7 9
Colonial stock account, buildings		2,034	14 10
Colonial cartage account		811	3 6
Copper ore adventure account		4,476	10 3
General stock account, stores bought for miners, bullocks, drays, and mining implements		5,812	19 3
Emery account		463	16 4
Total account	£	68,230	11 8
Masterman, Peters, and Co., loan account	£	3,000	0 0
Instalment account, shareholders stock		56,970	0 0
Bills payable		6,650	0 0
Copper ore account		1,610	11 8
Total	£	68,230	11 8

On the directors' attendances being read, the CHAIRMAN appeared to have been absent at two board meetings which had been held, which he explained by stating, that he was very anxious to see their new superintendent (Major Campbell) off; and he had been detained at Portsmouth some time waiting the arrival of the ship, when those absences occurred. He then briefly adverted in a feeling manner to the severe loss they had all sustained in the death of their late respected deputy-chairman (Hananel de Castro, Esq.), so deeply interested in the success of the company—one in whom was so thoroughly combined the qualities of the man of business with the perfect gentleman—one whose kindness of heart was ever prompting him to acts of charity, many of which had now come to light, which would never have been known while he lived. With respect to their property, he congratulated the meeting on the fact that there was no further room for anxiety—that they had discovered a valuable, productive, and lasting mine, and one which would pay handsome dividends, independent of the surface property.—Mr. JOSEPH then read some extracts from letters which had arrived since the report had been drawn up, and could not be embodied in it. Capt. Phillips therein stated, that in the stopes east and west of Goad's, the ground had become sufficiently easy to work with pick and gad only—that they found a quantity of almost native copper of a sandy friable nature, which they picked up and placed in bags, and which, by pulverising and washing, they could get up to 90 per cent.—that in exploring the country, they had discovered seven distinct and separate lodes in three miles, all more or less promising, and containing at surface fine carbonate of copper and pyrites.

In answer to Mr. Anderton, as to how it was that a wood could exist within a mile of the mine, and their agents not be aware of its existence, the CHAIRMAN explained, that it more probably meant to convey the idea that the proper description of wood for the mines had been found on penetrating the scrub, than the discovery of the wood itself.

In reply to Mr. Penny, Mr. JOSEPH said the Montacute Mine had cost about 1700*l.*, and had returned 1000*l.* worth of ores, involving a loss of 700*l.*

Mr. PENNY then inquired the gross income from the surface land, including the sheep run over their whole estate, held by Mr. Baker, one of the local committee?—The CHAIRMAN said, the subject had had the serious attention of the directors, and had been considered with much anxiety. They had only within the last few days obtained the necessary documents from Adelaide to enable them to go into the subject; they were, therefore, not yet in a position to give any information on it. It was a very delicate matter, requiring much care in the arrangement; but he had no doubt by their next meeting all would be settled.—So one considerable discussion took place on this point; but it was ultimately determined to leave it in the hands of the directors.

A long discussion took place on the alteration in voting by proxy, as proposed in the director's report, in which the chairman, Messrs. Anderton, Penny, Downes, Wilson, and others, joined, when at length the report was received and adopted, and, with the balance-sheet, ordered to be printed and circulated among the proprietors; the proposed 2s. 6d. stamp proxy agreed to; J. Horne, J. Masterman, jun., and G. E. Hodgkinson, Esqs., who went out of office by rotation, were re-elected; John Capper, Esq., who some time since retired, was re-elected, and James Ashwell, Esq., was elected a director, in the room of H. de Castro, Esq., deceased.

Mr. R. SHEPPARD having been refused, according to the custom of the office, an inspection of the shareholder's ledger, the subject was brought before the meeting for their decision by the chairman. It appeared that, under certain regulations, the shareholders had access to all the other books of the company; but this one which contained the whole of the transfers of shares, showing exactly how many each proprietor bought or sold in a given time, the directors considered they were justified in keeping private.—Mr. SHEPPARD contended, that what could be inspected by all the directors, the secretary, and clerks, ought to be open to the body of shareholders, they certainly being their property.—No one, however, was found to second the motion, and it, of course, fell to the ground; the mover saying he was by no means discouraged, but should bring it forward on a future occasion.—10*l.* was then voted to each of the auditors for their annual services.—Mr. BUCKLE, an auditor, stated it was merely a matter of form, as those gentlemen handsomely declined to accept anything until the mine paid a dividend.—A vote of thanks was passed with acclamation to the chairman and directors, and the meeting broke up.

SOUTH AUSTRALIAN MINING ASSOCIATION (BURRA BURRA).

The fourth annual general meeting of proprietors was held at their offices, Rundle-street, Adelaide, on the 18th of April,

CHARLES BECK, Esq., in the chair.

After the usual preliminaries, the following report and statement of accounts were presented to the meeting:—

In the last report to the shareholders, the directors expressed their fear that the ores of the preceding year would find a depressed market, and such has been the fact, to a greater extent even than they then anticipated. At one period the average of Burra Burra ores produced 9*l.* per ton less than formerly. From this circumstance, and the improper state in which a large quantity of the ore of 1848 was unfortunately sent from the mines and shipped, and which was only discovered subsequently, the profits arising to the association during the last half-year have not been sufficient to warrant the directors in declaring a dividend. During the last two months the ore market has considerably improved, although it has not recovered its former state; but should the present prices be maintained, the directors intend to resume the payment of dividends at an early period. The proprietary will be pleased to learn that while a cloud has been passing over the affairs of the company, from the unprecedented state of the markets, discoveries have been made in the mine which give the directors the greatest confidence in its present value and future prosperity. The most important of these are the lodes, one in the 30 fm. level, south-west from Graham's shaft, consisting of red oxide and malachite in great abundance; and the other 2 fms. wide, in the 30 fm. level, east from Kingston shaft, yielding malachite of high produce. Some idea of their value may be formed when it is known that during the present take the men (12 in number) employed in the only two pitches set on these lodes, in the first week of their workings produced 80 tons of the richest ores. It is most satisfactory that in all these discoveries the lodes appear well defined, and the ore improves in quality in depth. In the old workings new lodes continue to be found, and there yet remains a good extent of ore ground in the 20 fm. levels. The directors increased the exploratory works generally at the last survey day, and they have reason to believe that it will be attended with beneficial results. The pumping engine, of 83-horse power, together with the pitwork recently imported by the association, have been safely carted to the mine. The engine-house is in course of erection, and the directors trust that before the next meeting of shareholders the engine will be fixed and at work, for without its assistance the works in the 30 fm level cannot be proceeded with to any great extent. The directors submit an extract of Capt. Roach's report of 14th inst., received this day:—"The pitches in the 30 fm. level, at Kingston's and Graham's are turning out satisfactory. Ayers' shaft is 29 fms. deep, at the bottom of which we have a good lode of oxide and malachite, principally the former. The shaft is all lode at present. When we get to the 30 fm. level we shall extend our cross-cuts east and west, which will open a great deal of tribute ground, which, from present appearances, will be worked at a low rate of tribute. In the 20 fm. level, at Roach's engine-shaft, we have a fine bunch of malachite of first-rate quality."

As intimated in the former report, the directors intended resuming the underground works in November last, but where prevented by the refusal of the workmen to take the wages offered them. This state of matters continued until January last, when operations were partially resumed on the directors' terms; in February and March more extensively so; and, at present, to a larger extent than ever, the number employed on the works, including the officers, being 613. This will account for the small quantity of ore produced in the last six months, as shown in the ore return annexed. The production of the February and March "take" was equal to 1000 tons per month. The present take is expected to be more productive. The directors have to observe, in explanation of the deficiency in the quantity of ore stated to be on the mines in September last, and what it actually proved to be, that it arose partly from over estimation, but in a great degree to the waste in re-dressing these ores, a course the directors found necessary to take, in consequence of the imperfect manner in which they had been previously dressed.

From the establishment of smelting works in this province and in Sydney, the shipment of ores to Britain will be very much diminished, if not altogether abandoned, and the increased profits arising from the sale of the ores within the province will be considerable. As the particulars of the arrangement entered into by the directors with the Patent Copper Company will be submitted to the meeting of shareholders, it is unnecessary for the directors to remark on the subject here, beyond stating that the delivery of the ore to the company commenced a fortnight since, and the first tapping of coarse copper took place last week.

The current balance-sheet exhibits to the debit of the association 30,614*l.* 19*s.* 4*d.*, which will be fully balanced by the drafts against the stock of ore on hand and the bills receivable, besides which the association have from 6000*l.* to 7000*l.* in London, to provide for any contingency arising there—which, however, is not anticipated, unless a further decline takes place in the ore market. The company's liabilities are, therefore, fully provided for; and even without an improvement in the present prices of ore, a large sum will accrue from the sale of the 14,000 tons now afloat, after payment of the drafts against the same. It will be necessary to elect five directors in the place of Messrs. Allen, Paxton, Peacock, Stocks, and Waterhouse, who retire, but who are eligible for re-election; and also a director to fill the vacancy of John Ellis, Esq., disqualified.

Return of the stock of ore on hand at the half-year ending 30th Sept. last (caculated at 21 cwts. to the ton), with the quantity raised since that period, showing the quantities carted from the mines, on the road, sold, exported for sale, and remaining on hand at the port and mines:—

	ORE ON HAND.								
Sept. 30, 1848—At Port Adelaide	*Tons*	1725	12	0	16				
On the road to ditto		464	11	1	0				
At the mines 11,500 tons, but reduced by subsequent redressing to		8029	16	2	14	10,220	19	0	2
March 31, 1849—Raised since 6th January last						2,140	0	0	0
Total	*Tons*					12,360	19	0	2
Sept. 30, 1848, to March 31, 1849—Ore exported for sale	*Tons*					8,512	11	0	0
Sold within the province						643	6	3	10
March 31, 1849—On hand at Port Adelaide	*Tons*	678	7	1	20				
On the road to ditto		214	14	3	0				
At the mines		2312	0	0	0	3,205	1	0	20
Total	*Tons*					12,360	19	0	2

Balance-Sheet of South Australian Mining Association—March 31, 1847, *to March* 31, 1849.

Profit and loss from last balance	£	8,356	9 7
Capital stock		12,320	0 0
Rent of land and buildings		289	17 0
Sale of ore		55,335	14 9
Drafts against 14,289½ tons of ore exported for sale		160,615	5 2
Fees received on transfers, &c.		132	16 6
Sundry creditors		30,614	19 4
Unclaimed dividends		360	0 0
Total	£	268,025	2 4
Landed property, buildings, &c.	£	18,979	13 6
Wages and sundry accounts connected with the working of the Burra Burra Mines, including plant, fixed machinery, timber, bags, horses, tools, implements, stores, &c.		116,609	10 4
Cartage of ore		53,551	6 6
Charges, being expenses of establishment, officers' salaries, &c.		8,433	4 2
Colonial freight and agency		1,041	18 2
Discount, exchange, and interest		6,719	18 0
Office furniture		219	0 3
Shipping expenses and port agency		5,509	12 5
Sixth dividend (in part payment of 24,640*l.*)		24,520	0 0
Seventh dividend (in part payment of 24,640*l.*)		23,610	0 0
Sundry debtors		37	7 1
Bills receivable		8,195	0 0
Cash in hand		238	11 11
Bank of Australasia (unclaimed dividend fund)		360	0 0
Total	£	268,025	2 4

The arrangement entered into by the directors with the Patent Copper Company, for the disposal of the association's ores, having been approved and confirmed, the thanks of the meeting were given to the chairman and directors, and the meeting separated,

QUEBEC MINING COMPANY.

The annual general meeting of shareholders was held at the office of the company, James-street, Quebec, on the 9th July last,—PETER PATERSON, Esq., in the chair,—when the accounts from the 30th of June, 1848, to 1st July, 1849, showed an excess of expenditure, over income, of 129*l.* 17*s.* 2*d.*, the former having been 10,845*l.*, and the latter only 10,715*l.* 2*s.* 10*d.* Still, this expenditure of 10,845*l.* bears favourable comparison to that of the previous year, of 13,686*l.*, while, from the report, it appears that the general operations have been much more extensive, consequently hastening the approach of that period when returns may be expected. Considerable underground and surface works have been constructed; an avenue cut through a wood, and the ground levelled for a conduit to convey water to the stamps, a distance of 1200 yards, in which distance the declivity is such that two or three setts may be worked by the same water. The materials for the erection of a smelting furnace have arrived at the mines, and that work is also advancing, and is expected to be in operation by the end of August. A gentleman has been engaged to superintend this important department, who has acquired at Swansea the knowledge of the right amalgamation of different descriptions of ore, and whose previous residence in Chili, and his connection with the copper mines of that country, have enabled him also to acquire the art of smelting with wood fuel. A portion, however, of this vein stuff as it comes from the mine, is already of as high a per centage as is required for smelting, and will go direct to the furnace, without washing at all. The stamps will thus be relieved from a considerable portion of work, and the anxiety, trouble, and expense consequent on sending 400 to 500 tons of ore to market will be reduced to that attendant only on 100 tons of copper, while at the same time the company obtain the profit on smelting.

The general prospects of success are greater at the Mesurier Mine than those at the Paterson were at the same stage of operations, and present indications of the most promising nature. Ground has been cleared and prepared for agricultural purposes. Sufficient hay, oats, potatoes, and other vegetables, can be raised for the consumption of the colony. Several hogs and sheep have been sent to Mica Bay, which succeed admirably without expense; and with the abundance of excellent fish that are taken every day, the expenditure for provisions hereafter will be greatly reduced; indeed, in a short time the establishment will be independent as regards food, except for flour and groceries. The gradual discoveries of the last two years on Pointe aux Mines and Mica Bay are continuing up to this time, and, in all probability, will do so for many years to come. The surface party, in making roads, clearing land, and other surface work are, in fact, a party of explorers.

Every labourer, even in his hours of amusement in the woods, is an explorer; and, to encourage observation in the men, a reward is given to those who make known any indications of mineral they meet with; and hardly a day passes without some vein of more or less value being discovered. The value of these cheap explorations are highly appreciated, as forming a contrast with the ineffective and costly ones of 1846 and 1847. By the 1st of June, 1850, it is expected to have ready for shipment 10,000*l.* worth of copper, when calls will cease, and the fund enable the directors to erect more smelting-furnaces; and by June, 1851, they hope to pay dividends—having sufficient reserves in hand for general purposes. The directors speak in the highest terms of the superintendent, Mr. O. H. Matthews; and say that to his talent as a miner are the shareholders indebted for the success in which they are about to participate, and to his judgment and knowledge of mining affairs are they indebted for much valuable information, which has enabled them to avoid many errors, and will be of infinite value to their successors in office hereafter

BOLANOS MINING COMPANY.

An adjourned special general meeting of shareholders in this company was held at the offices, Duke-street, Adelphi, on Wednesday, the 1st inst.

Sir ROBERT PRICE, Bart., in the chair.

Mr. HEAD (the secretary) having read the notice convening the meeting, the CHAIRMAN observed that they (the shareholders) had been called together for two purposes—for altering the 24th clause of the Deed of Settlement, and to consider the raising of further capital. At the general meeting, a doubt had arisen whether the directors had power to issue preference shares, and it was best clearly to define that power by an alteration of the deed. By the deed, as originally drawn, it was also required that the acts of one meeting should be confirmed at a subsequent one; and the alteration in the clauses proposed by the directors was, that any resolutions passed at any meeting legally convened should be considered as final, without the formality of a second meeting for confirmation, provided it be stated in the notice that no such second meeting would be held—and giving power to issue preference shares.—Resolutions to this effect having been put and seconded, were carried unanimously.

Mr. HEAD then read the resolutions for raising the new capital, the substance of which we gave in the report of the annual meeting in the *Mining Journal* of the 27th June last—viz.: that 14,000 shares be issued at 3*l.* per share, payable by instalments of 1*l.*, on August 6, Sept. 28, and Nov. 20; the present shareholders to have pre-emption until the 13th inst., when the directors are authorised to offer them to the public. Shareholders to be entitled to one share for every old share held by them; the whole of the 3*l.* per share to be returned out of earliest profits, previous to any dividends being paid on the old shares. If 5000 new shares be not taken up, the money to be immediately returned; but if that number, or above, be taken, the directors are authorised to proceed with the operations and allotment of shares, but not on terms less favourable to the company than those specified in the resolutions.

The CHAIRMAN then observed, that the present favourable position of the mine was so palpable, and its advantages had been so fully discussed, that he had little further to say. He believed there never was a mine that gave greater promise, with so little spent upon it. It had been fairly opened upon, shafts sunk, levels and cross-cuts driven, an engine paid for, and all now ready for working, the whole of which expenses, with the exception of 5000*l.*, had been defrayed by the produce of the mine, and that only from one vein; while there were numerous others which could soon be explored, and which, it is believed, will prove equally productive. They were not sinking in an exhausted mine, to search for what riches the Mexicans might have left behind them, as they had done in the other Bolanos Mines, but here they had virgin ground, which held out most prosperous results. He alluded to Real del Monte, which, after refusal by the shareholders to form a new company, was taken up by the Mexicans for a sum of 26,000*l.*, covering all old liabilities, and the purchasers had immediately sold it to a company at a premium of 40,000*l.* It would, indeed, be a mortifying thing to find Bolanos, in which they could see their way much clearer than even in the Real del Monte, following in the same route.

In answer to Mr. Barclay (a scrip holder to the extent of 200 shares), Mr. JOHN TAYLOR stated, that if the mine turned out as they expected, the stores, machinery, and property would be worth what they cost, probably 40,000*l.*; if they abandoned it they would find it difficult to obtain any return for the property. Mr. Placci (the mine manager in Mexico) had a good opinion of the mine; 250,000*l.* worth of ore had already been raised; since the Bolanos Company had worked it, it had paid all expenses of opening ground, engine, machinery, sinking a shaft 120 fms., 8 ft. by 4 ft., lining, fixing pump work, and all other work, with the exception of 5000*l.* advanced by the company.

After some further conversation, in which the value of the mine appeared to be highly appreciated by all present, the resolutions for raising the capital were passed unanimously.

The CHAIRMAN requested those gentlemen who had made up their minds as to the number of shares they would take, to inform the secretary, for the guidance of the directors, and the encouragement of others. They had had a great many promises; the directors would take a large proportion, and he trusted they should be able to distribute 7000 or 8000 shares. It would not be desirable to issue them to the public, if they could avoid it.

A vote of thanks was then passed to the chairman and directors, and the meeting broke up.

HOLYFORD COPPER MINING ASSOCIATION.

At the general half-yearly meeting of shareholders of this company, held at the offices, Great Winchester-street, on the 31st July,

EDWARD HUNT, Esq., in the chair,

After the usual preliminaries, the following report of the directors was read:—

The directors beg to submit to the shareholders the balance-sheet and account of expenses and produce of the mines, made up to the usual periods:—

Referring to the foregoing accounts, the directors have still to regret the unprofitable working of the mines, although there has been some improvement in the produce, and but for the extra expenses of opening what may be called a new mine, at the Old Forge, there would have been but trifling, if any, loss; and it is their opinion that, from the present prospects, and at the reduced expenditure, some profit may be expected during the next six months. They would, however, refer to the following report of Captain John Lyle, from which they form their opinion:—

"*Holyford Mines, July* 25.—I herewith hand you my report on these mines for the last six months. We have driven the adit level north 7 fms.; the end is now in an elvan, with a large quantity of water. I hope, as soon as we get through this channel of ground, we shall have an improvement in the lode—at present it is small. We have driven the adit level on a lode which went off from the north lode, to the west of north, 10 fms. 3 ft. 10 in., where we had a lode for a great part of the distance, varying from 8 to 10 inches, solid ore: we have now a pitch working in the bottom of the level on this lode which will produce 60*l.* worth of ore per fm. The 10 fm. level north has been driven 10 fms. 0 ft. 8 in.; the lode has varied in size from 18 in. to 6 in. wide, and for several fathoms we have had a good lode, which will be sett for about 4*s.* in 1*l.* The 10 fathom level south we have driven 10 fms. 0 ft. 6 in.; the lode at this time is small; the pitch in the back, over this end, is looking well, and will produce about 80*l.* worth of ore per fathom. We are sinking a winze under this level, which is down 4 fms. 1 ft. 2 in., where the lode is at this time 1 ft. solid ore, and improving as we get down. The engine-shaft has been completed to the 20 fm. level, and sunk under that level 3 fms. 5 ft. 8 in.; the whim-shaft has also been completed to that level. The 20 fm. level has been driven north 11 fms. 2 ft. 6 in.; the ground has been hard, and the lode small. The 20 fm. level south has been driven 10 fms. 4 ft.; the lode has a promising appearance the whole distance, and producing some very good bunches of ore, which will work on tribute, as soon as the winze is communicated from the 10 fm. level, at about 4*s.* in 1*l.*; the lode in the end, at this time, will produce 25*l.* worth of ore per fathom.

"At the engine-shaft under the 20 fm. level we have a good branch of ore, 6 in. wide, solid, on a branch west of the lode, and also stones of ore in the ground between the branch and the lode; according to the underlay of the lode in the 20 fm. level, they will come together about the 30 fm. level, and as we shall then be down in a settled country, I hope we shall have a good course of ore. The winze under the 17 fm. level has been sunk 4 fms. 2 ft.; the lode in the bottom of the winze is 1 ft. wide—a good lode, and will work at a moderate tribute as soon as we can get a level under it; the first shaft has been sunk 3 fms. 4 ft. 6 in. The pitches throughout the mine are looking well. Old Forge engine-shaft is sunk to the 20, and the 20 driven east 2 fms. 4 ft.; where the lode is in a disordered state; and we are obliged to discontinue driving this level, not having sufficient water for the wheel. The 10 fm. level has been driven east 31 fms. 3 ft. 8 in.; in the last 8 fms. the lode has varied from 7 ft. to 4 ft. wide, with a large quantity of greens and spots of ore; it is now 4 ft. wide, of the same character, and, from its appearance, I should think we cannot be far from a course of ore; in driving this level we cut a branch south, of a very good appearance, 1 ft. wide, and as soon as we can communicate the shaft in the eastern hill, we intend to open on it; at this time we cannot do so, not having air to proceed with the two levels. From the improvement in the engine-shaft, and also in the 10 fm. level at Old Forge, I hope the next half-yearly report will be more flattering than the present.—JOHN LYLE."

The arrangement made with Low's Patent Copper Company proceeds satisfactorily, and shows results from the produce of the mines considerably exceeding what would have been obtained at the public ticketings.

The report of the directors was approved and confirmed, and thanks voted to the chairman and directors.

RUNNAFORD COOMBE MINING COMPANY.

At a meeting of adventurers, held at the Black Eagle, Woolwich, on the 23d July—THOMAS CANHAM, Esq., in the chair—the accounts were examined and passed, showing—Balance last account, 170*l.* 4*s.* 9*d.*; on calls, 43*l.* 5*s.*; tin sold, 6 tons 10 cwts. 3 qrs. 15 lbs., at 47*l.* 17*s.* 6*d.*=308*l.* 10*s.* 3*d.*; together 522*l.*; by labour cost, May, 162*l.* 8*s.* 1*d.*; ditto June, 172*l.* 12*s.* 4*d.*; lord's dues, 20*l.* 11*s.* 8*d.* leaving a balance in hand of 166*l.* 7*s.* 11*d.* A call of 5*s.* per share was made, and it was resolved, that if calls made prior to 16th January are not paid by 6th August, steps will be taken as may be required; that Mr. Morris's resignation as treasurer be accepted; and that Messrs. Henderson, Canham, and Phœnix, be the joint treasurers. The following report was read:—

July 23.—Since our last meeting we have made some very important discoveries. Two lodes have been discovered, one to the north, and the other to the south of the lode that we have been working on. The newly-discovered north lode is from 3 to 4 ft. wide, composed of capel, peach, prian, spar, and tin, worth from 15*l.* to 20*l.* per fathom for tin. We have commenced a cross-cut 25 fms. to the west of Morris's shaft, by four men, at 2*l.* per fathom, to intersect this lode at this point, where there is every indication of cutting a good lode; this lode being intersected by a cross-course at this point, and the

general character of the ground being congenial for tin, gives the practical miner every prospect of success—we have driven in this cross-cut 5 fms., and have about 6 fms. more to drive before we intersect this lode. If this lode proves productive when cut we shall be able to open ground to the east and west, and ra'se sufficient tinstuff to supply our large stamps until we cut the lode and open ground in the 10 fm. level. The adit level going east is suspended, on account of the lode being poor for several fathoms; the lode in the back of this level stoping east, is 4½ ft. wide, yielding fair quantities of tin—stoping by two men, at 1*l.* 15s. per fathom; the western stopes, in the back of this level, are looking well; the lode is 4 ft. wide, producing good stamp work—stoping by six men, at 1*l.* 10s. per fm. The new south lode, discovered in driving the cross-cut to unwater Morris's shaft, is about 18 in. wide, composed of peach, prian, spar, and capel, with a leader of tin from 4 to 6 in. wide. We are now about 11 fms. under the surface, therefore we cannot have a more cheering prospect than we have at present, until we have cut the lode in the next level, and from the present indications, there can be no doubt of having one of the most productive mines in the two counties. We have resumed sinking Morris's shaft, and have sunk 6 ft., but the ground is hard and water quick, consequently we are obliged to put nine men in the same, at 9*l.* 9s per fathom. We sampled on Monday last, the 16th inst., about 3½ tons of tin ores; the quantity would have been considerably greater, providing the water had not fallen so slack. When we have a sufficient quantity of water our stamps goes 10 revolutions per minute, carrying 14 heads, which, under the deficiency alluded too, at present only goes six revolutions per minute, carrying four heads, so you will perceive why the sampling is less than we anticipated. The engine-house will be completed in the course of six or eight days. The boiler is at Totness, and the engine will be on the mine in the course of three weeks.

TRESAVEAN MINING COMPANY.

The usual two-monthly meeting of adventurers was held at the mine, on Tuesday, 31st July, when a statement of accounts was submitted, showing—Labour cost for May and June, 157*l.* 2s. 9d.; merchants' bills, 689*l.* 2s. 7d.=2261*l.* 5s. 4d.—By copper and tin ores sold April and May (less lord's dues), 2099*l.* 2s. 7d.; sundry credit, 211*l.* 17s. 4d.=2310*l.* 19s. 11d.—showing profit of 49*l.* 14s. 7d.; add balance in hand end of April, 907*l.* 12s. 9d.—leaves now in hand, 957*l.* 7s. 4d.

The following report from Capt. Jennings was read to the meeting:—

July 31.—In the 300 fm. level, driving east of the old east shaft, the lode is 3½ ft. wide, yielding stones of ore; in the 300 fm. level, driving west from the same shaft, the lode is small and unproductive. In the 286 fm. level, driving east of the same shaft, the lode is 3½ ft. wide, yielding stones of ore. The winze in the 272 fm. level is communicated to the 286 fm. level. In the 260 fm. level, driving west from Treviskey shaft in this sett, the lode is 5 ft. wide, producing stones of ore, and has a promising appearance. In the 75 fm. level, driving on the north lode, west of the old east shaft, the lode in the end is 3½ ft. wide, yielding 1 ton of ore per fathom. On driving a few fathoms we shall intersect the cross-course, where we expect an improvement. All other parts of the mine are much the same as they were two months since.

TREVISKEY AND BARRIER MINING COMPANY.

The usual bi-monthly meeting of shareholders was held at the mine on the 23d July, when the statement of accounts for April and May were produced, showing—

TREVISKEY.

Ore sold 29th June (less 1-12th lords' dues, 258*l.* 15s.)	£2846	5	0
Barrier adventurers materials	4	5	11—2850 10 11
Labour cost, April and May	£ 713	16	6
Tribute of ore	429	8	8
Merchants' bills, &c.	504	5	2
Tresavean adventurers engine cost, &c.	178	7	11—1825 18 3
Showing profit of			£1024 12 8
Add balance in hand end of March			43 11 8
			£1068 4 4
Dividend of 8*l.* per share			960 0 0
Leaves now in hand			£ 108 4 4

In Michael's shaft, which is now 9 fms. below the 260, the lode is 18 in. wide, but unproductive. In the 260, 21 fms. east of Michael's shaft, the lode is 1 ft. wide, unproductive, but the general appearance of the ground is favourable for ore. In the 248, 51 fms. east of Michael's shaft, the lode is 1 ft. wide, producing 1 ton of ore per fm. In the 236, 40 fms. east of Michael's shaft, the lode is 5 ft. wide, producing 5 tons of ore per fm.; in the winze sinking below this level, 6 fms. behind the end, the lode is 3 ft. wide, producing 5 tons of ore per fm. In the 224, 32 fms. east of Michael's, the lode is 18 in. wide, producing stones of ore, and has a promising appearance. We have not yet intersected any lode in the 40 fm. level, driving south of Williams's sump shaft. We sampled last week 353 tons of ore, and expect to raise 330 tons for July and August.

BARRIER.

Labour cost, April and May	£20	12	5
Tribute of ore	8	13	10
Tresavean adventurers engine cost	6	11	7
Purs.r's salary, &c.	2	5	0—38 2 10
Ore sold 29th June (less dues, 1*l.* 2s. 7d.)			14 13 10
			£23 9 0
Due pursers' end of March			45 16 6
Shows present deficit			£69 5 6

We have one pitch working in the back of the 260, at 13s. in 1*l.*

WEST WHEAL PROVIDENCE MINING COMPANY.

A meeting of adventurers was held at the mine on the 18th July, when a statement of accounts was presented, showing—By sale of black tin and copper ore, 1088*l.* 3s. 1d.—Cost for March, 164*l.* 2s. 6d.; April, 157*l.* 4s. 1d.; May, 161*l.* 5s. 7d.; merchants' bills, 85*l.* 6s. 10d. = 567*l.* 19s.; showing profit of 520*l.* 4s. 1d.; add balance end of February, 26*l.* 8s. 2d.=546*l.* 12s. 3d.—By dividend of 2*l.* per share, 512*l.*; leaves balance in hand, 34*l.* 12s. 3d.—The following report, from Capt. R. Polglase, was read to the meeting:—

July 18.—We have driven, in the past three months, the 55 fm. level, west of Michell's shaft, on Tremayne lode, 10 fms.—worth, on an average, 10*l.* per fm.; and west at this level, on the south lode, 8 fms.—worth 6*l.* per fm. We have four men, east of Mitchell's shaft, stoping in the bottom of the 50 fm. level, at 20s. per fm.—lode worth 12*l.* per fm. We have six men sinking St. Aubyn's shaft, which has been suspended for two months on account of the water; but it is now drained, and I expect we shall hole to the 40 fm. level in a week, when we shall be able to set some moderate tribute ground. We have three pitches working—one in the back of the 50, at 6s. 8d.; one in the back of the 40, at 12s.; and one in the back of the 35, at 12s. in 1*l.* I am glad to be able to say that our bottom level is the best level we have had in the mine.

WHEAL BLENCOWE MINING COMPANY.

The quarterly meeting of adventurers was held on Wednesday, the 25th of July, when the accounts for the three months were produced, showing—Cost for March, 151*l.* 13s. 1d.; April, 132*l.* 17s. 7d.; May, 142*l.* 6s; merchants' and other bills, 82*l.* 15s. 7d. = 509*l.* 12s. 3d.—Balance due to adventurers, 11s. 6d.; tin sold, and carriage (less dues), 249*l.* 0s. 9d.; arrears of calls, 27*l.* 1s. 6d.; leaving balance due to purser, 232*l.* 18s. 6d.—It was stated that, in consequence of the low price of tin for the past month, it was deemed advisable to withdraw for the present from sale the tin raised in June.—A call of 15s. per share was made, to pay off the balance due to the purser, amounting to 232*l.* 18s. 6d.—The following report was read to the meeting:—

July 23.—Since our last meeting, we have sunk a winze from the 20 fm. level nearly 4 fms. deep on the south-east and west lode, and have found the lode very productive of tin; its size is about 3 ft. We wish to get a communication as speedily as possible by this winze, from the 20 to the 30 fm. levels, as it will afford ventilation and facilitate the working. The new shaft has been sunk, and a communication has been open from it to the 15 fm. level, and a whim is fixed on it, so that we are now enabled to send the tinstuff to surface at a considerably less expense than by the old shaft. In cutting a plat, east of the new shaft, we discovered a lode—the direction of which is about south-east and north-west: its size about 18 in.; does not contain much tin; but I consider it valuable as a feeder to the other lodes, which it must intersect. On extending about 4 fms. south-east on the course of this lode, we intersected the old north and south lode, and found it about 3 ft. big, in a good stratum of ground, and containing fair work. We shall now drive on the course of the north and south lode, in order to cut the north-east and west lodes, which we hope to have done within a month from this time. The north and south lode, in the bottom of the 15 fm. level, is about 6 ft. big, and its produce about 4 cwts. of tin per 100 sacks; the backs are just the same as they were at the last meeting. At present there are not many hands employed in stoping tin ground, as there is a scarcity of water for stamping it; our operations are, therefore, chiefly confined to exploring and opening upon the lodes.

CONSOLS MINES—At a meeting of adventurers, held on the 18th July, the accounts, as follow, for May and June were allowed:—To costs and merchants' bills, 6544*l.* 17s. 7d.—By balance from last account, 62*l.* 17s. 7d.; ores sold, less dues, 6358*l.* 15s. 9d.=6421*l.* 13. 4d.: balance against the mine, 123*l.* 4s. 3d.

ACCIDENTS.

Monmouthshire.—Two miners were seriously injured by an explosion at the colliery works at Aberaman. It was occasioned by a heavy fall of roof in a distant part of the mine, which forced a large quantity of gas into the headings were they were working; t hey were both severely burned, but not to such an extent as to endanger their lives.

Dowlais.—E. Anwyl was killed by a fall of roof at the Brewhouse level.

Dudley.—T. Edwards was killed by a fall of coal at Haden Hill Colliery.

Greenhead Colliery.—R. Hutchinson was killed by a blow from the engine beam.

Horton Colliery.—J. Binks, keelman, was thrown out of the waggon on to the rails when eight of the waggons passed over his body, and killed him.

Whitehaven.—A. Robson was killed by an explosion, caused by his using a naked lamp, in the Threapthwaite Colliery.

Derbyshire.—Thomas Brown was killed by the falling of a quantity of bind, while working in a coal pit at Codnor Park.

Brierley Hill.—Wm. Steven fell down a shaft at Mr. Izon's colliery, Dog-lane, a depth of 160 feet. He received a compound fracture of the leg, and is dreadfully injured about the head and other parts of his body, but was still living.

Bilston.—Philip Dyke was killed by being drawn over the pulley, and thrown out of the skip with great violence, in Mr. Hickman's pit.

Darlaston.—A child, named Bird, whilst playing, by some means got entangled in a chain connected with the engine of the New British Iron Company, and being drawn into an iron tube, which protects the chain under the road, he was killed. This is said to be the third death from similar accidents within a few weeks.

We are credibly informed that one of Mr. Prothero's hauliers, on his last journey down with coal, brought safely from the colliery to the wharf the astonishing number of 51 trams, containing a net weight of 141 tons of coal. This was done with only six horses.—*Monmouthshire Merlin.*

ST. JOHN DEL REY MINING COMPANY.

SIR,—Since my letter of 12th July, further advices have been made public, respecting the crack in the Middle Cachoeira. The superintendent's precautionary measures are detailed, he says, in his diary; if so, it is a pity we are not enlightened by them, as the only step of caution he apparently has taken, is stationing a man to look at the cracked ground. Prevention is always better than cure, especially in mining, where delay in securing ground may render impossible that which before was only difficult and costly. In this instance, the mine agent looks forward to the possible necessity of leaving a pillar of lode, when the mine is deeper, if the crack follows them; it would be wiser to stop the crack now. It is dangerous. The danger may not be imminent, but I defy any one to prove that it is remote; and the attempt made to prove it so, by comparison with the loose ground in the Quebra Panella, is simply ridiculous. The mine agent says—"The dangerous ground in the East Cachoeira when discovered, about three years ago, was expected to fall in a few months; it has not yet given way, although the crack in some places is 3 ft. wide. The crack in the Cachoeira, which nowhere yet is the ¼th of an inch wide, is in a line of killas."

If this rule-of-three mode of calculating chances were a correct one, there would be no occasion to offer extraordinary high prices for pillar timber; but for the information of the company's superintendent who sends home this nonsense, I will mention, that the dangerous ground at the East Quebra Panella is a piece of lode left against the wall, which was undercut by working the stope too wide under it. The country at this place does not run parallel to the lode, and the shakey ground is partly kept from falling by teeth of ore running into the killas; the wall here is nearly perpendicular. In the middle Cachoeira, the "crack is in a line of killas, softer than the killas generally;" in other words, the lode is worked clean across to the killas wall, to which it is parallel, the said wall overhanging at an angle of about 45°. A few years back some 500 tons of this identical killas line on surface fell away without giving any notice, to the damage of a bridge-road under it; fortunately nobody was there to be hurt. Notwithstanding this, to say the least of it, disagreeable crack in a part of the mine which yields at least one-third of all the ore supplied, the extract from the mine report for April, in your Number of 21st July, begins most gallantly—"The lode, as a whole, never presented a more cheering aspect." According to this, the crack must be a positive advantage, as it is the only discovery made in April to make that month show a more cheering aspect of the mine than poor crackless March; for, I presume, it is not intended to say that the gut in Quebra Panella widened to 20 feet in April, or that all the killas lines in the western part of Quebra Panella disappeared in April, or that in April the ore of the gut was first supposed to be worth 7 to 8 oitavas per ton.

These are 1st of April discoverics; the Quebra Panella gut was only 4 feet wide at surface; it gradually widened in depth (at the same time the Great Quebra Panella narrowed), and three years ago was about 20 ft. wide; the lode there has always been estimated to yield from 7 to 8 oitavas per ton. The disappearance of the killas may have become complete in April last, but must have been in progress of extinction for many months. It was, however, convenient to bring forward these clap-traps not once only, but in the mine report, in your Journal of the 21st July, and again in the superintendent's letter, in last Saturday's *Mining Journal*, with the intention of making people suppose that the crack was more than compensated for by improvements in other places. It is not very complimentary to the directors to send them as news particulars of their mines which have been known for years. It is not surprising that these details should have escaped their recollection, but there is no excuse for their officers, on the other side, making them parties to deception, by publishing statements true to the letter, but not in spirit.

The unpleasant state of affairs respecting the supply of stone, is said to arise from the mine being *temporarily* undermanned, and when manual force is procured the prospects will be brighter than ever. Probably, the superintendent thinks this undermanning only temporary—that by offering higher rates for slave hire, as he offers increased price for timber, he will obtain blacks. I believe he is mistaken; mortality is the skeleton in the house of Morro Velho; every death is now a double loss; it keeps back slave owners, and will for a long time prevent the increase of force to any extent. Being pressed for force—not for dead works, such as opening out new ground, but to keep the stamps supplied—he will lean more and more on the refuse heap, which will not last for ever. It must be remembered that the gold obtained from this rejected ore costs nothing; it was extracted at the expense of former years; when that shall be exhausted, the last day's stamping with 94 heads will close on Morro Velho.—VERAX: *City, August* 2.

WHEAL HENRY AND CREEGBRAWS.—This long-pending dispute as to the limits of part of the respective setts, and as to certain ores raised therein, has been submitted to the arbitration of Michael Williams and Richard Taylor, Esqrs. These gentlemen devoted two days investigating the respective claims, and, we understand, their decision has been made, by which the disputed ground has been awarded to the Wheal Henry adventurers, as well as all ores raised therein. It would have been impossible to have selected two more able and honourable gentlemen to have inquired into and settled a dispute of the like nature. Previous to the arbitrators entering on business, they named Alfred Jenkins, Esq., as their umpire, but it appears they decided without having occasion to refer to that gentleman.

JAMAICA MINE.—On Tuesday last, the shareholders in this company gave their miners and washers a dinner of roast beef, and a plentiful supply of "cwrw" and grog on the mountain. A few of the shareholders, with their wives and friends, joined, when music, dancing, and singing, became the order of the day. The weather proved propitious, and night broke up a very agreeable assembly, which will be chronicled in the memory of many for years to come. Much praise is due to Capt. Sharples for the active part he took in the arrangements.

ROCHE ROCK TIN MINE.—This prolific locality for tin mining is about to produce another mine, that promises to equal, if not to surpass, the Great Rock Mine. Lately a few adventurers sunk a shaft 10 fms. deep, and drove to cut two very rich lodes, each about 3 ft. wide, carrying a leader of solid tin, 3 in. thick, and during the past month has been set on tribute at 10s. in 1*l.* The men are getting great wages, and there is every reason to expect that the next take will be set at about 5s. in 1*l.* Some very rich specimens have been sent to Mr. Richardson's offices, in Broad-street, with instructions to arrange the formation of a company, to carry out the workings on a large scale. We are informed several gentlemen in the City have taken the matter into consideration.

TREBARVAH MINES.—This undertaking, which was stopped in August last, in consequence of there being defaulters to the amount of 1800*l.*, is situated within two miles of Marazion and of the shipping port. The sett is a mile in length on the course of the lodes, and half a mile in breadth, contiguous to the Great Wheal Neptune Mine, which has yielded profits from 1500*l.* to 2000*l.* per month. Large quantities of tin, it appears, have already been raised, and it is now proposed to erect efficient machinery to work the mine with spirit. For this purpose 1024 shares will be disposed of, at 3*l.* per share, payable by five instalments, when the holders will participate in all the advantages of the adventure in proportion with the original proprietors. The dues are 1-18th, and the sett is held under lease for 21 years.

RAILWAY TRAFFIC RETURNS.

Names of Railways.	Length. 1849	Length. 1848	Present actual cost.	Price p. share	Div. 1848	Traffic Returns. 1849	Traffic Returns. 1848
Aberdeen	33	16	1,000,547	19½ ¼	—	£ —	—
Belfast and Ballymena	37½	37½	——	19½	5*	532	£576
Birkenhead, Lancashire, & Cheshi.	19	15	1,088,804	37	5†	993	857
Bolton, Blackburn, & West Yorksh.	14	—	786,384	7 -	—	422	282
Bristol and Exeter	75½	75½	2,660,490	67	—	4614	—
Caledonian	141	141	4,865,135	24½ 3¼	3	6043	4430
Chester and Holyhead	84	59½	3,358,217	16¼	4	2312	1480
Dublin and Drogheda	35½	35½	774,875	29¼	—	818	866
Dublin and Kingstown	7½	7½	395,915	—	—	1216	1128
Dundee, Perth, & Aberdeen Junc.	47½	47½	544,554	19	6½	1266	1264
East Anglian (Lynn to Ely)	91½	55½	1,167,104	2 ¼	—	726	652
East Lancashire	75½	24	2,628,519	17¼	5	3553	1131
Eastern Counties and Norfolk	322	295	12,027,069	8¾	—	15825	16479
Eastern Union	50½	50½	1,712,703	13	—	1720	1454
Edinburgh and Glasgow	57½	52½	2,644,378	41	6	3027	3767
Edinburgh and Northern	78	34	2,232,115	10¾	2	2493	1866
Glasgow, Paisley, and Ayr	102½	74	2,574,330	54½	3	3235	2410
Glasgow, Paisley, & Greenock	23	23	848,328	16¾	2	1252	1351
Gt. Northern & East Lincolnshire	126	—	4,255,171	9¼	5†	2385	—
Gt. Southern & Western, Ireland	168½	110½	3,172,519	35½	6†	3611	3166
Great Western	230½	206½	11,608,815	83¼ 2¼	6½	17244	21836
Lancaster and Carlisle	70	70	1,476,102	54¼	4½	3600	2205
Lancashire and Yorkshire	206½	127½	9,218,450	84	5½	14396	11927
Liverpool, Crosby, & Southport	13	—	84,455	3¼	—	254	202
London and North Western	435	428	25,077,942	132 3	7	47770	48916
London and Blackwall	5½	4	1,299,675	4 ¼ 4	1-12	1020	1411
London, Brighton, & South Coast	170	162½	6,382,281	37½	2½	11797	10749
London and South-Western	216½	194	7,510,689	36½	5½	12664	11895
Londonderry and Enniskillen	14½	14½	171,026	16	—	168	174
Manchester, Sheffield, & Lincolnsh.	129½	94½	6,048,679	35	5	5640	3021
Midland Company	471	423½	14,042,340	65¾	5½†	22722	22798
Midland Great Western (Irish)	50	36½	725,332	24½	4†	1125	924
Monklands	37	—	500,000	—	6	725	—
North British	109½	83	3,649,055	13	4½	3649	2412
Scottish Central	45¼	—	1,364,228	22	7	1443	1007
Shrewsbury and Chester	48	23	969,618	14½	5	1531	632
Shropshire Union	30	—	——	—	—	343	—
South Devon	57½	29	1,909,232	12 13	5	1920	1700
South-Eastern	165½	165½	8,116,914	21½ ¼	5½	12121	10412
Taff Vale	40	40	879,110	—	7½	2013	1877
Ulster	36	36	723,829	45½	—	952	790
West Cornwall	13	—	——	—	—	360	—
Whitehaven Junction	12	12	150,879	9¼	3	¤216	197
York, Newcastle, & Berwick	259	242½	6,827,849	20	7	12334	13100
York and North Midland	255½	234	4,983,618	30¾ ¼	7	8474	9101

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning Eleven o'clock.

Bank Stock, 7 per Cent., 199½ 9	Belgian, 4½ per Cent., 84½ 4
3 per Cent. Reduced Ann., 92¾ ⅞	Dutch, 2½ per Cent., 51⅝ ½ ⅝
3 per Cent. Consols Ann., 92¾ ⅞	Brazilian, 5 per Cent., 84
3½ per Cent. Ann., 93⅝ ¾	Chilian, 6 per Cent., —
Long Annuities, 9 8½	Mexican 5 per Cent., —
India Stock, 10½ per Cent., 252½ 5½	Russian, 5 per Cent., 106⅝ 6
3 per Cent. Consols for Acc. 92⅝ ¾ ⅞	Spanish, 5 per Cent, 18½ ⅝
Exchequ. Bills, 1000*l.*, 1½d. 51 48 pm.	Ditto 3 per Cent., 34⅝ 5 4⅝

MINES.—More than an average amount of business has been done in the mining market this week. We find a great many shares have changed hands in our great leading mines, and the inquiry for more still prevails; we, therefore, hope that a reaction has taken place, which will prove permanent.

We have had a somewhat busy week with meetings of companies, formed for carrying out those important branches of our national industry to which our columns are more particularly devoted—mining and metallurgy—the result of which present various features—the Australian, Burra Burra, and Bolanos being satisfactory—the Asturian and Cameron's Coal Company very questionable.

As the first meeting in the week, we would call particular attention to the report of the AUSTRALIAN MINING ASSOCIATION, which must prove highly satisfactory to those shareholders who were unable to attend. All the difficulties naturally attendant on the working of mines in a far distant land may now be said to be overcome. The Tungkillo adventure gives unmistakeable indications of being a highly productive, rich, and lasting property; while a large portion of the surface land of the company's estate of 20,000 acres will very shortly, there is every reason to believe, be disposed of on terms highly advantageous to the shareholders, whatever remains always forming valuable pasturage as sheep and cattle runs. The new superintendent, Major CAMPBELL, arrived at Adelaide in January last, and, as will be seen from the directors' report, immediately set about carrying out his instructions with energy, and with a tact and forethought which gives a well grounded hope of his becoming a valuable agent, and securing the best interests of the English shareholders on a firm basis. He has had, doubtless, some uphill work and adverse elements to deal with; but by a firmness of character highly creditable, combined with an urbanity of disposition and unassuming behaviour, he has made all in the colony as well as at home his friends, and there is every prospect of the colonial management being now conducted with the greatest harmony and success. The successful results of the Tungkillo Mine is another gratifying feature in the colonial history of South Australia, which will, no doubt, tend to swell the already increasing tide of emigration to that interesting country, which, from its high pastoral and agricultural capabilities, its yet unexplored mineral wealth, its healthy and invigorating climate, and peopled principally by our own race, will, at no distant day, if governed by wise, parental, and just laws, become the brightest jewel in the British Crown.

We have received also the report of the directors of the SOUTH AUSTRALIAN (BURRA BURRA) MINING ASSOCIATION submitted at the fourth annual meeting, held in Adelaide, on the 18th April last, and which will be found in another column. It will be seen that, notwithstanding a passing gloom had come over the affairs of the company from the fall in the price of ore, the misunderstanding which occurred with the superintendent, and other untoward circumstances, everything appears again in trim, and prospective of future success. Most important discoveries have been made in the mine. Several new lodes have been discovered, yielding the red oxide and malachite in great abundance, and of high produce. A satisfactory arrangement appears to have been made with the men, who, to the number of 613, had returned to work at the period of the meeting. The produce of February and March was equal to 1000 tons per month, and which would be considerably increased. It is probable the shipment of ores to this country will cease, as they have already commenced sending ores to the new smelting company, and the first tapping of coarse copper took place a week previous to the meeting. Appearances are at present highly favourable to the shareholders; what effect the throwing such vast quantities of copper into the market will have on the British trade, time alone must show.

Our reporter attended the meeting of the ASTURIAN MINING COMPANY, which took place on Tuesday last, when, for the first time since its formation, the directors would not consent to his being present. This looks bad; it speaks trumpet-tongued of the miserably depressed state to which the company is reduced, and the shifts which the directors are put to prevent the results of their mismanagement from coming before the public. In defiance, however, of their close and unwise policy in excluding us, we have heard sufficient to convince us that the company is at its last gasp. It appears that the management, whether from ignorance of the Spanish laws, or some other cause, have either done some illegal acts, or omitted some necessary legal forms, for which they are threatened with prosecution, unless a certain number of thousands of pounds can be raised by parties, whose interest it is to compel the company to spend their money, and who, it is freely said, can interpret and twist the laws in any way most conducive to their own interest.

The shareholders are naturally surprised and indignant at this state of affairs after the lapse of so many years, and the sinking of capital to the extent of 180,000*l.*; after so many promises of coming success and dividends, and so many galling disappointments, the majority are fully aware that there can be no surety for their advancing another shilling of capital, unless Lord PALMERSTON, as Secretary of State for Foreign Affairs, would undertake to treat with the Spanish Government for the unmolested operations of the company. We understand the chairman (Mr. COLQUHOUN) begged hard for another subscription—the result of which may be anticipated; but at present the meeting stands adjourned until the 31st August, to give time for further endeavours to complete negociations now pending for the purchase of the property, an explanation of which is to be given at the adjourned meeting. The following is the statement of accounts from the commencement to April last:—

DR.—Received on calls			£164,063	13	0
Liabilities incurred and unpaid			16,344	13	2
Remittances from Spain			2,145	16	11 = £182,554 0 1
CR.—By cash paid for concessions, works, machinery, and freights			£165,970	13	3
Expense of forming company			1,440	17	8
Paid directors			4,767	0	0
Bad debts			3,292	0	0
Good ditto, and office furniture			753	10	2
Sundry payments and about 950*l.* in hand			6,329	19	0 = £182,554 0 1

Whatever may be the motive of the directors in seeking to conduct their meetings in secret, we feel it our duty, as public journalists, to give those interested the benefit of the above information, which we received from an authentic source, and one on which we can rely.

From our report of the CAMERON'S STEAM COAL COMPANY'S meeting, on Tuesday last, it will be seen that unanimity among the directors and shareholders is far from being established. Although the report of the former, read at the meeting, spoke of arrangements made with the vendor for the benefit of the company, by which the payment of the principal of the debt was to be postponed for five years, and of the company being in possession of a valuable coal-field of 1300 acres, which was capable of meeting an extensive demand for 100 years, and of their wharfage and accommodation for shipping coal at Swansea, there was evidently a feeling of mistrust, and a disinclination to advance more funds was apparent; indeed, opinions were expressed, that the best and wisest plan would be to wind up the company's affairs at the earliest possible period. The meeting, however, at present stands adjourned to the 16th inst

The result of the meeting of the BOLANOS COMPANY, as far as the adoption of the plan proposed by the directors, is as satisfactory as could be desired. It will be seen that the resolution for raising the money necessary to enable the agents to prosecute the operations at the mine was unanimously carried; and we are happy to say that, at the invitation of Sir ROBERT PRICE, several gentlemen openly stated what number of the shares they intended to take, amounting to a fair proportionate number, considering the smallness of the meeting. As the directors themselves will take a goodly proportion, and we understand they have received a great many promises of support from influential and wealthy holders of Bolanos shares, we have some grounds to hope that a sufficient sum will be forthcoming from the present proprietors without depreciating the value of the concern by the issue of shares to the public, as every share thus allotted, reduces in proportion the value of those held by the present adventurers. The directors, we have reason to believe, have hopes of

raising something like 20,000*l.*—a sum which, according to all mining experience in Mexico, and the indications of El Bote, will more than suffice to place that mine in a highly productive and profitable state.

Several shares in Devon Great Consols have been done this week, and buyers still appearing. An important improvement is daily expected. In the 35 fm. level, at Wheal Fanny, the lode was worth 50 tons of ore per fm., and a winze was sunk as far as the water would permit it being worked. They have now driven the 45 fm. level, and in extending, towards the ore ground in the above level, the lode is opening much larger, and is now worth 10 tons per fm., and apparently fast coming in under the rich ore ground found in the 35.

Inquiries are being made for Bedford United, South Tamar, East Wheal Rose, Treviskey and Barrier, and most of the leading or favourite mines.

South Basset is much improved; in the south, or Williams's lode, it is estimated that upwards of 60,000*l.* worth of ore has been discovered. North Pool is also considerably improved, the lode in the shaft yielding 20 tons of ore per fm. A reaction has taken place—these shares, which were seeking buyers a fortnight since, can now only be found at our present quotation.

Notwithstanding the present depression in the price of Condurrow shares, we learn that a splendid course of tin is now being worked upon.

Buyers have appeared for Comfort shares, probably arising from the improvement which has taken place in the 75 fm. level of Tresavean, which is about 50 fms. from the boundary of the former mine.

The Birch Tor and Vitifer Mines are represented to be in the most satisfactory position. A sale by tender of 160 forfeited shares was made last week, when the number applied for far exceeded those for sale, and at a better price than generally anticipated.

Shares in the following mines have changed hands during the week:—Devon Great Consols, South Basset, West Buller, South Wheal Frances, West Seton, North Pool, Stray Park, Tresavean, Treviskey and Barrier, East Buller, Wheal Agar, Carn Brea, East Pool, Wheal Comfort, West Caradon, South Tolgus, United Mines, South Tamar, Cwm Erfin, Bedford United, Mendip Hills, Tregorden, Birch Tor, &c.

At the Treviskey and Barrier meeting, a dividend of 8*l.* per share was declared in Treviskey, leaving a balance in hand of 108*l.* 4s. 4d. The profit on the two months' working was 1024*l.* 12s. 8d. In Barrier, the balance against the mine is 69*l.* 5s. 6d., including the loss brought from the previous account.

At the West Wheal Providence meeting, a dividend of 2*l.* per share was declared on the months of March, April, and May, leaving a balance in hand of 34*l.* 12s. 3d. Had the price of tin kept up, a dividend of 3*l.* per share would have been paid. The levels were looking well and productive; the tribute department is being worked with advantage to the adventurers.

Wheal Blencowe quarterly account meeting was held on the 25th July. The balance-sheet shows a balance against the mine of 232*l.* 18s. 6d., whilst the tin raised in June has been withheld in consequence of the present depression in that metal; therefore, there appears to be three months costs against two raisings. The agent's report is considered very favourable as to future returns, inasmuch that a large quantity of productive tin ground is being laid open, as wel as some important discoveries having been made since the last meeting.—A call of 15s. was made.

At the Tresavean meeting a profit of 49*l.* 14s. 7d. for the months of May and June, was shown, making balance in hand, 957*l.* 7s. 5d., which was carried to credit of next account. A slight improvement has taken place in the 75 fm. level on the north lode, west of the old east shaft. Other improvements are expected, as they are now approximating the cross-course. The general appearance of the other levels are much the same as last reported on.

At the Great Consols meeting, the accounts showed—Costs for May and June, 6544*l.* 17s. 7d.; ores sold, and brought from last account, 6421*l.* 13s. 4d. —leaving balance against the mine of 123*l.* 4s. 3d.

At West Wheal Seton meeting, the accounts for May and June showed a profit of 55*l.* The mine, we learn, is much improved, and having commenced making profit, there is every reason, from present appearances, to calculate on her being in a few months a dividend-paying mine.

At the Holyford Copper Company's meeting the balance-sheet presented, was approved and confirmed. The mines are still being worked to a loss, principally arising from operations which have been commenced in the opening of the Old Forge Mine. A detailed report of the workings, by Capt. John Lyle, is given in another column, by which we find a large number of tribute pitches are being worked with great advantage to the company, which proves the lode to be rich, especially so in many important points. The arrangements made with Low's patent Copper Company have produced the most satisfactory results.

In foreign mines, the transactions in shares have been rather limited this week, especially in those that usually find buyers—such as United Mexican, Copiapo, St. John del Rey, Bolanos, &c., which have been only slightly touched.

A large number of North British Australasian shares have been done this week—letters having recently been received from the colony, giving a detailed statement of the prospects and proceedings at the mines of Kaw-aw.

H.M. packet, *Linnet*, arrived on the 30th, bringing the Brazilian mails, and having on freight about 20,000*l.* sterling.

The St. John del Rey advices state the gold extracted for twenty-one days' stamping at 15,043 oits.—being about 17 oits. per cubic foot of sand. The supply had been chiefly kept up from the refuse heap, of which about 500 tons had been removed for that purpose. A temporary falling off may be expected, from causes explained in the official report.

The National Brazilian letters are to the 26th May. The gold extracted from Cocaes, from 13th to 23d May, was mks. 3 2 0 30; Cuiaba, 16th to 26th ditto, mks. 1 6 7 20—total, mks. 5 0 7 50. The agent reports that the ground in the eastern end still continues favourable, and that a communication to Irving's Mine will be effected earlier than had been anticipated.

The Imperial Brazilian gold report gives the produce from Gongo Soco and Bananal from 14th to 22d May 3 lbs. 10 ozs. 11 dwts.; the total from 1st Jan. 156 lbs. 6 ozs. 13 dwts.

Letters have been received from the Spanish lead mines of Linares, advising the arrival of the *Prometheus*, with the remainder of the machinery and stores, and which, with the exception of one boiler, have reached the mines. The water is down 18 fms. from surface, and the lode in the upper part of the mine has been worked away; but, as far as the prevailing opinion of the district goes, and from the general appearance of the mines, the most favourable results are anticipated.

The directors of the Barossa Range Company have been advised, by letters dated 16th April, that, at Lyndoch Valley, they had holed a new shaft, which would enable them to break many tons of ore in the course of six weeks. At the Bremier Mine, Mount Barker, the shaft is down 8 fms., in the bottom of which the lode was found good; although not passed through, sufficient was seen to pronounce favourably; the ores raising are worth about 27 per cent. Several branches running north and south are also found good saving work. The *Royal Archer* had shipped about 35 tons of good ore; another shipment would, probably, take place in about two months from that time. From present prospects, regular periodical shipments may be expected for this company.

At the meeting of the Quebec Mining Company, the director's report was satisfactory, stating that 10,000*l.* worth of copper would be ready for shipment in about 12 months, and calls cease; and that in June, 1851, it was probable the payment of dividends would commence. Smelting furnaces were commenced erecting, and the general prospects were highly encouraging.

The *Banker's Magazine* gives the following return of the importation of specie for the first six months of this year:—"Returns have been prepared, exhibiting the total amount of specie imported from foreign countries for the half-year ending the 30th of June, by the various lines of royal mail steamers arriving at Southampton. It appears that the West India steamers for the six months in question, have brought to Southampton the enormous amount of gold and silver, in dust, bars, coin, &c., to the value of $10,570,655 (or say, in sterling, 2,114,133*l.*), the product of the mines in Mexico, California, Chili, Peru, Bolivia, and other South American States. Of this amount about $950,000 have been received from California, either direct or *viâ* Valparaiso, Lima, &c., at which ports the dust had been melted into bars. The Peninsular and Oriental steamers have brought from Alexandria during the same six months gold and silver coin value 498,591*l.* sterling, the majority of which has been specie remittances from India, for account of the Hon. East India Company. The Constantinople steamers have brought, within the same time, gold and silver coin valued at 540,000*l* sterling, and the steamers from Spain and Portugal specie value 360,000*l.* sterling; so that the total amount of specie received at Southampton by the several lines of steamers from all parts of the world, from the 1st January to the 30th June inclusive, reaches 3,512,724*l.* sterling—an amount which, if consisting entirely of silver, would weigh upwards of 400 tons, and in gold would weigh nearly 35 tons."

HULL, THURSDAY.—The share market remains neglected, both for railway shares and for miscellaneous local stock, the general dealers in which appear at present to lean towards the "let alone principle," both as regards buying and selling. The North British and East Anglian committees' reports are in the hands of the shareholders, and we may simply remark, that neither of them present any parallel to those extraordinary disclosures with which the railway world has been shocked, as with an earthquake, from our own neighbourhood, with regard to the *York lines*, and which, by the way, is one of the main causes of the present inactivity.

TIN TRADE.—The following quantites of tin were exported from Banca by the Nederlandsche Handel Maatschappij:—During the year 1844, 63·866 picul.; 1845, 58·471 picul.; 1846, 60·050 picul.

KONGSBERG SILVER MINES.—The production of silver at these mines in the month of June, last was 1387 marks 1 oz. fine silver—in the corresponding period last year it was 3928 marks 8 ozs. This, however, cannot be considered any criterion as to the real produce. Within the last six months extensive robberies, both of the ores and the silver, have been discovered, and in one instance the direction have recovered from the guilty parties silver to the value of $ 700.

The export of iron from the port of Gottenburgh, in Sweden, during the year 1848 was 23,927 tons. Of this quantity 8680 tons were shipped to Great Britain and Ireland, 10,094 tons to the United States, and the remainder to different countries in Europe.

PRICES OF MINING SHARES.

BRITISH MINES.

Shares.	Company.	Paid.	Price.
1000	Abergwessin	8	5
1024	Alfred Consols	8½	8½ 10
1000	Antimony & Silver-Lead	5	—
1024	Ashburton United Mines	8½	12
1024	Balleswidden	9	18
128	Balnoon Consols	42½	50
10000	Banwen Iron Co.	6	6
1000	Barristown	5½	1½ 2
1000	Bawden	1	1½ ⅛
4000	Bedford	2½	3½ 3¾ 4
1280	Birch Tor Tin Mine	10½	5⅜ 6
8000	Blaenavon	50	12½
5000	Blisland Consols	1	6
100	Botallack	182	25
120	Brewer	5	5
10000	British Iron, New, regis.	12	8
—	Ditto ditto, scrip	10	10
128	Bunnick Consols	52½	10
1000	Calington	22	10 11
1000	Camborne Consols	6	6 6½
20000	Cameron's Steam Coal	7	1
256	Caradon Copper Mine	9½	1½
256	Caradon Mines	22½	10
256	Caradon United	24	5 8
256	Caradon Wh. Hooper	21	4¾
1000	Carn Brea	15	105
3000	Carthew Consols	1½	5
114	Charlestown	220	—
500	Combiawn	5½	4½
128	Comfort	45	50
256	Condurrow	20 65	70 75
2560	Cook's Kitchen	14	2¾ 3
1000	Coombe Valley Quarry	3½	4½
1000	Copper Bottom	1½	6½
900	Cwm Grango	5	10
512	Craddock Moor	23½	5
128	Creeg Braws	120	30
500	Cubert Mine	12½	—
1000	Cwm Erfin	3	2⅝ 3
300	D. Prior & Buckfastleigh	—	—
7100	Derwent	8½	5
845	Devons & Courtenay Con.	7½	2 3
1024	Devon Great Consols	1	190 195
1000	Dinurde	2	5
182	Dolcoath	30	15
2360	Drake Walls	5½	3 4
9000	Durham County Coal	4½	5
3000	Dyngwm	10	12½
512	East Alvenney	5½	6
2560	East Birch Tor	3	3
112	East Caradon	47	47
2048	East Crowndale	6½	4
512	East Combe Silver-Lead	6½	6½
128	East Pool	15	70
9000	East Tamar Consols	¾	⅝ ¾
94	East Wheal Crofty	125	65 70
1024	East Wheal Fortune	2	3
128	East Wheal Rose	50	600
—	East of Scotland Iron Co.	5	1⅛
123	East Wheal Seton	14	10
1280	Esgair Lli	1½	4 4½
248	Exmoor Wh. Eliza	6	6
494	Fowey Consols	40	45
1024	Freidd Liwydd Mines	1½	3½
6400	Gadair	2	⅛ ¼
4000	Gen. Mining Co. for Irel.	1½	1½
256	Gonamena	44½	16
128	Goonvrea	4	2
256	Grambler & St. Aubyn	80	8 9
100	Great Consols	1000	180
512	Gt. Wh. Rough Tor Con.	18½	18 20
6400	Growa Slate Company	5	5
256	Gwinear Consols	7	—
6000	Heigniston Down Con.	1½	⅜ 1
256	Herodsfoot	27	15
10000	Hibernian	12½	1½
239	Hobb's Hill	6	1½
1000	Holmbush	22	8 10
1536	Holne Park	2	2 4
1024	Kingsett and Bedford	1½	3 3¼ 4½
787	Kirkcudbrightshire	8½	2½
2048	Lamberoue Wh. Maria	8	2½
252	Lamarth Consols	—	4
128	Lobaut Consols	90	40
160	Levant	—	200
1000	Lewis	16	10½
1000	Llwynmalees	8	6½ 10
3600	Llynvi Iron	50	50
253	Lostwithiel Consols	23	10
6000	Marke Valley	10	⅝ 1
5000	Mendip Hills	3½	1⅝ 1¾
128	Metha	34	—
20000	Mining Co. of Ireland	7	4
1280	Nant-y-cria	5	5
256	New East Crowndale	2½	2½
100	North Pool	45	500
140	North Roskear	5½	140
262	North Wh. Leisure	1½	2
256	North Wheal Basset	10	10 12
10000	Northern Coal Co.	23	2
128	Par Consols	55½	650
8000	Pennant & Craigwen	2½	2
1024	Penzance Consols	22s 3d.	3
512	Plymouth Wh. Yeoland	6½	6
200	Polsalth Consols	5½	4½
2500	Rhoswiddol & Bacheiddon	10	10
10000	Rhymney Iron	50	13
10000	Ditto New	7	6½
1000	Rosewall Hill	1	5
256	Rosewarva Mines	—	12
2048	Runnaford Coombe Tin	¾	5

BRITISH MINES—*continued.*

Shares.	Company.	Paid.	Price.
9000	South Tamar	¾	¼ ⅛
128	South Caradon	5	350
1100	South Dolcoath	4	5
256	Sth. Friendsh. Wh. Ann	30	28 30
256	South Molton	5	14½ 15
256	South Tolgus	16	35 40
235	South Treiawny	28½	5
2000	South Wales Mining Co.	¾	1 1¼
128	South Wheal Basset	20½	360
124	South Wh. Frances	160	255
256	South Wh. Josiah	—	3
1000	South Wh. Maria	2½	1½
10000	Southern & Western, Irish	2	4
280	Spearne Moor	30	40
256	St. Austell Consols	9	—
94	St. Ives Consols	—	80
128	St. Michael Penkivel	5	10½
999	St. Minver Consols	1	6
1000	Stray Park	43	17½
9600	Tamar Consols	3	8 8½
1024	Tavy Consols	6½	2 2½
6000	Tincroft	7	10 10½
1000	Tin Vale	2½	⅛
98	Tokenbury	170	10
256	Tregorden	2	5 6 7
256	Trenane	1½	25
5000	Treleigh Consols	6	2½ 3
2000	Trenance	3	—
96	Tresavean	10	95
120	Trethellan	5	15 16
120	Treviskey and Barrier	130	90 100
288	Trevean	1½	1
200	United Mines	50	150
256	Wellington Mines	25	38 40
128	West Buller	10	275
256	West Caradon	20	110 20
512	West Fowey Consols	40	12
256	West Providence	9	17½ 20
200	West Seton	45	75 80
120	West Trethellan	5	16
256	West United Hills	—	4½
512	West Wheal Frances	1⅜	2
256	West Wh. Friendship	9	8
3725	West Wheal Jewel	12	⅛ 1 1½
256	West Wheal Tolgus	80	10
256	West Wheal Treasury	19	4½ 5
1024	Whiddon Mines	4½	2
5200	Wicklow Copper	5	8¼ ¾
1·7	Wheal Adams	79	30
1000	Wheal Agar	—	6
256	Wheal Albert	10	1
240	Wheal Anderton	25½	21
128	Wheal Ann	—	50½
512	Wheal Anna Maria	7	8
1024	Wheal Ash	4½	8
120	Wheal Bal	5½	15
256	Wheal Benny	14½	2
1024	Wheal Bray	10	10
256	Wheal Blencowe	21	12
232½	Wheal Calstock	9	20 25
268	Wheal Courtenay	12½	—
256	Wheal Fortescue	15	—
388	Wheal Franco	27	12 15
128	Wheal Harriet	45	—
100	Wheal Henry	—	25
1024	Wheal Lawrence	2½	2⅝
112	Wheal Margaret	79	225
512	Wheal Mary Ann	5	25 26
208	Wheal Mary Consols	60½	8
360	Wheal Oak	6	5
—	Wheal Penhale	—	6
210	Wheal Prospect	4	7
120	Wheal Reeth	41	150
128	Wheal Rose	60	3
198	Wheal Seton	214	250
180	Wheal Sisters	35½	5
494	Wheal Sophia	4½	5
128	Wheal Spearne	10	68 70
128	Wheal St. Ann	30	35
550	Wheal Trescoll	9	10 15
260	Wheal Trelawny	7½	67½ 70
256	Wh. Tremaine (St. Ervan)	9½	2½
1024	Wheal Tremayne	9½	3 4
92	Wheal Tryphena	140	100
1000	Wheal Vincent	2½	7
256	Wheal Vlow (Perranz.)	⅜	⅜
184	Wheal Vyvyan	—	60
250	Wheal Williams	28½	8

FOREIGN MINES.

8000	Alten Mining Company	14½	2½
15000	Asturian Mining Co.	15	3½ ¼
20000	Australian	3	4 4½ ¼
10000	Anglo-Mexican Co.	100	¼
12374	Ditto Subscription	25	1½
6000	Barossa Range	1½	1⅝ ⅛
3000	Bolanos	150	1
2000	Ditto Scrip	1	1½
10000	Brazilian Imperial	23	3
12000	Cobre Copper Co.	40	26
10000	Copiapo Mining Co.	14	3 3⅜
20000	General Mining Ass'n.	20	14
4000	Guadalcanal	5	6½
5000	Kinzigthal Mining Ass.	2	1½
5051	Mexican Company	5½	—
2000	Mexican & South Amer.	8	1 1⅛
5000	National Brazilian	30	3½ ⅜
104000	N. Brit. Australasian	1	⅜
7000	Royal Santiago	10	5½
11000	St. John del Rey	15	9½ 9⅝
43174	United Mexican	Av. 28½	3 3½

LATEST CURRENT PRICES OF METALS.

LONDON, AUGUST 3, 1849.

	per ton.
ENGLISH IRON. *a*	
Bar, bolt, & square, London	£6 0 0
Nail rods	6 12 6
Hoops	7 15 0
Sheets (singles)	8 15 0
Bars, at Cardiff & Newport	4 15 0–5 5
Refined metal, Wales	3 10 0–4
Do. anthracite	3 15 0
Pigs in Wales	3 5 0–4
Do. do. forge	2 10–2 15
Do., No. 1, Clyde ... *net cash*	2 5–2 7
Blewitt's Patent Refined Iron for bars, rails, &c., free on board at Newport	3 15 0
Do., do., for tin-plates, boiler plates, &c., ditto	4 10 0
Stirling's Patent } in Glasgow	2 15–2 17
Toughened Pigs } in Wales	3 15–4 10
Staffordshire bars, at the works	6 0 0
Pigs, in Staffordshire	2 10 0–3
Rails	5 0 0
Chairs	4 0 0
FOREIGN IRON. *b*	
Swedish	11 10–11 15
CUND	—
PSI	—
Gourieff	—
Archangel	—
FOREIGN STEEL. *c*	
Swedish keg	13 15 0
Ditto faggot	15 0 0
ENGLISH COPPER. *d*	
Sheets, sheathing, & bolts, *p. lb.*	0 0 9
Tough cake	per ton 79 10 0
Tile	£78 10 0
Old copper *e*	per lb. 7¼d
FOREIGN COPPER. *f*	
South American, in bond	—
ENGLISH LEAD. *g*	
Pig	per ton 15 15–16
Sheet	16 10–16 15
Red lead	17 10 0
White ditto	22 0 0
Patent shot	19 15 0
FOREIGN LEAD. *h*	
Spanish, in bond	15 5–15 10
American ditto	—
ENGLISH TIN. *i*	
Block	per cwt. 3 13 0
Bar	3 14 0
Refined	3 19 0
FOREIGN TIN. *k*	
Banca, in bond	3 14 0
Straits	3 12 0
Peruvian (6 mo 2½ p. ct. dis.)	—
TIN-PLATES. *l*	
IC Coke	per box 1 7–1 8
IC Charcoal	1 11
IX ditto	—
SPELTER. *m*	
Plates, warehoused	per ton 14 10–14 15
Ditto, to arrive	—
ZINC. *n*	
English sheet	per ton 22 0 0
QUICKSILVER *o*	per lb. 0 3 2

REMARKS.—There is a fair legitimate demand for all descriptions of Welsh and Staffordshire manufactured iron, and at improved rates. As most of the makers are now well employed, it is very probable that, as the usual orders arrive for the autumn shipments, higher rates will be established. Scotch pig-iron in the early part of the week slightly declined in price, but has since recovered, and the market is pretty firm at 45s. for mixed Nos. The business doing, however, is extremely limited, and we quote the price 45s. for mixed Nos., 45s. 6d. to 46s. for all No. 1, cash, free-on-board in Glasgow.

GLASGOW, JULY 31.—During this month there has been some little activity among the speculators in pig-iron, encouraged by the supposed favourable news from the continent, and prices advanced about 2s. a ton; but as this activity did not extend to the trade, it soon died away, and prices have again fallen. The increase of production, and the present aspect of the iron trade, do not warrant the expectation of an advance in the value of iron; while, on the other hand, the state of the money market, the prospect of an abundant harvest, and the healthy state of trade in general, will prevent any material decline from the present prices. The market is flat to-day.

Mixed Nos. may be quoted at	44s. 6d.
All No. 1	45s. to 45s. 6d.
All No. 3	44s.
Common bars are	£5 12 6
Nail rods	7 0 0
Hoops	7 10 0
Plates and sheets	7 12 6

Subject to 4 per cent. discount.

— AUG. 2.—This week opened with rather a firmer feeling in the pig-iron market and a moderate amount of business has been done at a slight advance in price. We quote the price of mixed Nos. to-day at 45s., cash.

ROYAL BRITISH BANK.—The Governor and Directors of this bank have the satisfaction to announce, that the CHARTER has received the ROYAL APPROVAL, with permission to use the special designation of "THE ROYAL BRITISH BANK." The capital being subscribed, no further shares can be issued, and all allotment letters which have not been responded to are cancelled. It is expected that the bank will be completely organised and in operation by the end of September.
16, Tokenhouse-yard, Lothbury, August 3, 1849. 32

VALUABLE PATENT FOR SALE.—Mr. EDWARD PALMER is instructed to OFFER FOR SALE, by PRIVATE CONTRACT, one of the most valuable PATENTS with which he is acquainted, presenting a rare opportunity for the profitable employment of capital, and of a far less speculative character than usual.—Full particulars will be given to capitalists on personal application to Mr. Edward Palmer, auctioneer and estate agent, 20, Change-alley, Cornhill. 30

ASSAYING AND ANALYSIS.—Mr. MITCHELL begs to inform the MANAGERS, &c., of MINES, SMELTING-WORKS, and MANUFACTORIES, that he still continues to CONDUCT ASSAYS and ANALYSES of all PRODUCTS, metallurgical and manufacturing, at his LABORATORY,
23, *HAWLEY-ROAD, KENTISH TOWN, LONDON*,
to which address communications are to be forwarded.—Instruction in all branches of assaying and analysis as usual. 34

BICKFORD'S PATENT SAFETY FUSE.—The Patentees of the ORIGINAL, and only real, SAFETY FUSE, beg to inform Merchants, Mine Agents, Railway Contractors, and all persons concerned in Blasting Operations, that, for the purpose of protecting the public in the use of a genuine article, the PATENT SAFETY FUSE *has now a thread wrought in to its centre*, which being patent right, infallibly *distinguishes it from all imitations*, and ensures the continuity of the gunpowder. The Safety Fuse is now protected by a Second Patent, and manufactured by greatly improved machinery. BICKFORD, SMITH, & DAVEY, Camborne, Cornwall. 5

EMERSON'S PATENT LIQUID CEMENT is ready for use, is simple in its application, and only ONE-EIGHTH the COST of OIL PAINT; for beauty it is pre-eminent over all other materials used on the fronts of houses—giving the exact appearance of FINE CUT STONE; can be used at once on fresh Roman cement or other plastering; is particularly calculated for country houses, villas, or gate entrances that have become soiled or dingy, which can be beautified in any weather, at a trifling cost. Sold in casks, of 1, 2, and 3 cwts., at 8s., 15s., and 21s. each 36

PATENT MINERAL PAINT.

Invaluable as a COATING for SHIPS' SIDES and BOTTOMS, all kinds of WOOD or METAL WORK, roofing felts, leaky roofs, spouts and gutters, doors, sheds, railing, and all kinds of out-door work, and being perfectly waterproof, will preserve their surfaces from atmospheric influence and decay—requires no preparation, and will dry in a few hours.—Sold in casks, 2 to 50 gallons. Brilliant black, 2s.; rich brown, 2s. 9d. per gall.
BELL, LEAR, & CO., 16, Basing-lane, Cheapside.

By authentic accounts from South Australia, we are informed that the smelting-works of Messrs. Schneider and Co., which are conducted on Napier's process, are successfully progressing. A small quantity of copper had been refined, and there were confident expectations that in the month of May the make would not be less than 100 *tons of refined copper per week.*

GOLD IN NORWAY.—The *Christiana Morgenblad* states, that a Norwegian peasant (Ole Franz Scheiger) has discovered a gold lode at Westhimmer, in the province of Akershuus. It appears that, on breaking a piece of the rock, he suspected, from its weight, it contained gold. On pulverising the stone, and smelting it in a crucible, the result was a bar of gold. This he carried to Christiana, and offered for sale to a goldsmith, who at once admitted its value; but from the poverty of the owner, suspecting he had not obtained it honestly, gave information to the police authorities. On investigating the case, the peasant's statement was found correct. He has since, in conjunction with the Belgian Consul (M. Lorens Meyer) taken out a *muthungs brev* to work the mine.

BLACK TIN

Sold to the Union Tin Smelting Company, on the 10th July.

Mines.	*Tons*	*c.*	*qrs.*	*lbs.*	*Price per ton.*	*Total.*
Lewis	19	6	3	14	£44 1 0	£852 1 10
ditto	2	19	3	4	36 18 1	110 5 8
Amount of money						£962 7s. 6d.

Sold to the same Company, on the 12th July.

Tincroft	31	7	3	6	£37 18 4	£1190 4 2

Mines.	*Tons.*	*Price per Ton.*	*Purchasers.*
Runnaford Coombe	3½	£45 10 0	Calenick Co. and Williams.
Great Polgooth	12	40 0 0	Daubuz.
ditto	12	40 0 0	Williams and Co.
ditto	12	40 2 6	Bisoe Company.
ditto	12	40 1 0	J. H. Enthoven & Co.
ditto	12	40 0 0	Calenick Smelting Co.
ditto	4	36 2 6	ditto

LEAD ORES.

TICKETINGS FOR ABOUT 100 TONS LAXEY LEAD ORE.
Douglas, Isle of Man, July 31.

Bidders.	*Price per Ton.*
Sims, Willyams and Co. (purchasers)	£19 14 6
Mather and Co.	19 12 0
Walker, Parker, and Co.	19 7 0
J. T. Treffry	19 1 6
Thomas Somers	18 11 6
John P. Eyton	18 11 6
Newton, Keates, and Co.	18 4 0

Sold at Liskeard.

Mines.	*Tons.*	*Price.*	*Purchasers.*
Wheal Mary Ann	62	£17 19 6	Sims, Willyams, & Co.
Tregorden	5½	28 13 6	Tamar Company.

COPPER ORES.

Sampled July 18, and Sold at Tyack's Hotel, Camborne, August 2, 1849.

Mines.	*Tons.*	*Price.*
East Wh. Crofty	88	£5 18 0
ditto	84	4 17 0
ditto	81	4 9 6
ditto	63	4 6 0
ditto	51	0 19 6
ditto	50	0 10 6
ditto	40	1 10 6
ditto	37	3 6 0
ditto	23	0 17 0
Dudnance	49	6 14 6
Longelose	35	5 7 6
North Pool	110	4 17 0
ditto	109	4 19 0
ditto	100	4 8 0
ditto	85	2 11 6
ditto	84	2 9 6
Wh. Seton	101	3 7 6
ditto	62	4 18 6
ditto	60	5 4 6
ditto	59	6 11 6
ditto	55	2 17 6
ditto	47	5 4 6
Pendarves	61	4 13 6
Tincroft	87	2 18 6
ditto	80	3 18 6
ditto	68	2 5 0
ditto	55	2 5 6
ditto	52	3 16 6
ditto	47	8 14 0
ditto	46	1 6 0
ditto	2	20 13 0
Camborne Vean	95	£4 4 6
ditto	79	6 1 0
ditto	74	3 19 0
ditto	73	3 7 6
ditto	54	1 11 0
ditto	49	3 18 6
South Wh. Basset	82	5 1 0
ditto	69	5 15 6
ditto	68	4 5 0
ditto	66	2 16 6
ditto	65	11 15 0
Condurrow	87	3 18 6
ditto	82	3 3 0
ditto	37	9 13 0
ditto	22	8 14 0
ditto	19	1 13 6
Wh. Mary	78	4 14 6
ditto	58	2 14 0
ditto	55	2 10 0
ditto	41	6 16 6
Fowey Consols	82	5 10 6
ditto	72	5 0 0
ditto	56	4 4 0
Dolcoath	63	3 0 0
ditto	62	5 12 0
ditto	51	4 13 6
East Pool	71	4 15 0
ditto	45	2 5 0
ditto	40	0 8 0
South Wh. Frances	59	8 5 6
ditto	29	7 7 6
ditto	27	11 1 6

TOTAL PRODUCE.

East Wh. Crofty, Dudnance, Longelose	601	£2358	9	0	South Wh. Basset	350	£2051	15	6
North Pool	488	1939	16	6	Condurrow	247	1180	1	0
Wh. Seton	445	2036	10	6	Wh. Mary	232	942	9	6
Pendarves					Fowey Consols	210	1048	5	0
Tincroft	437	1555	10	0	Dolcoath	176	774	12	6
Camborne Vean	424	1694	0	6	East Pool	156	454	10	0
					South Wh. Frances	115	1001	2	6

Average Standard £ 98 14 0 | Average Produce 7¼
Average Price per ton £4 8 0
Quantity of Ore 3881 tons | Quantity of Fine Copper, 280 tons 15 cwts.
Amount of Money £17,037 2 6
LAST SALE.—Average Standard £100 0 0.—Average Produce 7¼
Standard of corresponding sale last month, 99l. 17s.—Produce, 7¼.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	363	£1574 0 6
Vivian and Sons	1188	5130 12 0
Freeman and Co.	346	1477 2 6
Pascoe Grenfell and Sons	654	2621 3 0
Sims, Willyams, and Co.	163	689 6 6
Williams, Foster, and Co.	817	3973 10 6
Schneider and Co.	350	1571 7 6
Total tons	3881	£17,037 2 6

Copper ores for sale on Thursday next, at Andrew's Hotel, Redruth.—Mines and Parcels.—Carn Brea 773—Tywarnhayle 442—Par Consols 285—

NOTICES TO CORRESPONDENTS.

*** We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

BRITISH ASSOCIATION.—"C." (Birmingham).—By the annexed list of the meetings of the association, it will be seen that the previous assembly in Birmingham was in 1839: meetings have also been held a second time in York, Cambridge, and Oxford:—

Date.	*Place.*	*Presidents.*
1831—Sept. 27	York	Earl Fitzwilliam.
1832—June 19	Oxford	Rev. W. Buckland, D.D.
1833—June 25	Cambridge	Rev. Adam Sedgwick, M.A.
1834—Sept. 8	Edinburgh	Sir T. M. Brisbane, K.C.B.
1835—Aug. 10	Dublin	Rev. Provost Lloyd, LL.D.
1836—Aug. 22	Bristol	Marquis of Lansdowne, D.C.L.
1837—Sept. 11	Liverpool	Earl of Burlington, F.R.S.
1838—Aug. 20	Newcastle	Duke of Northumberland, F.R.S.
1839—Aug. 26	Birmingham	Rev. W. V. Harcourt, F.R.S.
1840—Sept. 17	Glasgow	Marquis of Broadalbane.
1841—July 29	Plymouth	Rev. Professor Whewell, F.R.S.
1842—June 23	Manchester	Lord Francis Egerton, F.G.S.
1843—Aug. 17	Cork	Earl of Rosse, F.R.S.
1844—Sept. 26	York	Rev. G. Peacock, D.D., Dean of Ely.
1845—June 19	Cambridge	Sir J. F. W. Herschell, F.R.S.
1846—Sept. 10	Southampton	Sir R. I. Murchison.
1847—June 23	Oxford	Sir R. H. Inglis, D.C.L.
1848—Aug. 9	Swansea	Marquis of Northampton, P.R.S.
1849—Sept. 12	Birmingham	Rev. T. R. Robinson, D.D.

"Philo-Magyar" (Leamington).—Mr. Cobden was correct in his statement, at the meeting held at the London Tavern to sympathise with the Hungarians, that many of the gold and platina mines of Russia were the property of private individuals. According to returns procured by the British Consul at St. Petersburg, in 1833, and published by the House of Commons, in 1836, the produce of gold during the last six months of the year 1832 was 168 poods 28½ lbs., and platina, 59 poods 5½ lbs. This was subdivided as follows:—Gold: Crown works, 73 p. 39½ lbs.; Alexey Yacovleff's, 27 p. 35½ lbs; Rastorguyeff's, 15 p. 31½ lbs.; Demeedoff's, 18 p. 32 lbs.; J. Yacovleff's heirs, 12 poods 35½ lbs.; Tourchaneenoff's, 3 p. 18½ lbs.; Yartzoff's 3 p. 26½ lbs.; Gonbin's, 1 p. 39 lbs.; Count Stroyonoff's, 1 p. 39½ lbs.; Vsevolosky's, 6 p. 28 lbs.; Countess Polier's, 34 lbs.; Major's, 17½ lbs.; Goussetnkoff's, 2 lbs.—Platina: private works, 58 p. 37 lbs.; crown ditto, 8½ lbs. The value of gold is about 50,000 rubles per pood, and that of platina, 11,520 rubles; the par of exchange of the rouble is about 10½ sterling. According to this estimate, the value of the total production of the gold will be 8,435,620 rubles, or 369,058*l.* 7s. 6d. sterling; and of platina, 681,210 rubles, or 29,802*l.* 18s. 9d. sterling, which will give—Crown works: Gold, 3,693,750 rubles, or 161,601*l.* 11s. 3d. sterling; platina, 2376 rubles, or 103*l.* 9s. sterling.—Private works: Gold rubles, 4,741,871, or 207,456*l.* 16s. 3d. sterling; platina, 678,834 rubles, or 29,699*l.* 9s. 9d. sterling.

"An Ironmaster" (Ulverstone).—Mr. Jasper Rogers, C.E., of Palace-chambers, Saint James's-street, has taken out a patent for a peat compresser, which diminishes the volume of the peat one-third. A description of this machine will appear in our next.

"An Engineer" (South Shields).—We were aware that a "celebrated mining engineer of the north" had been black-balled at the Institution of Civil Engineers; but without knowing some cause which should influence such a step on the part of the members, we did not, and do not now, feel that the matter should form subject of remark in our columns.

PREVENTION OF SMOKE WITH ECONOMY OF FUEL.—We have received a long communication from Mr. William Radley on this subject, for the insertion of which we cannot find space. He complains that Mr. Andrew Smith's plan for preventing smoke, described in our last Number, is an infringement on a patent taken out by him in November, 1845, an extract from one of the claims of which he gives us. It certainly, we must own, appears a precisely similar plan, but we would remind Mr. William Radley, that Mr. Charles Wye Williams patented the same arrangement three years previous to the year 1845; and we have it on good authority that at least six hundred of these furnaces for marine, stationary, and various descriptions of boilers, have been built on this plan under license of the patentee. We quite agree with Mr. William Radley as to the absurdity and crying injustice of the English patent laws, which appear only to be made for the benefit of the harpies of the legal profession, and to produce incomes for the drones in sinecure offices in Chancery. With respect to the sale of the patent of Mr. Mansfield, for the manufacture of volatile hydro-carbons for purposes of illumination, which Mr. Radley complains is an infringement also of a patent of his; if such is the case, he can at least stop the sale as a preliminary measure, at scarcely any expense, as he has but to publish his claim, and no capitalist will risk the loss of his money by purchasing a useless patent.

"D. F." (Glasgow).—Grauwacke is a rock formation, composed of pieces of quartz, flinty slate, felspar, and clay-slate, cemented by a clay-slate basis; the pieces varying in size from small grains to a walnut, or larger.

"L. S. M." (Islington).—The office of the Railway Passengers' Assurance Company is at No. 3, Old Broad-street, City.

E. Morris (Carmarthen).—Mr. Trembley's invention for using the heat derived from steam in the act of condensation, for the production of vapour from sulphuric ether was published in our Journal of the 21st February, 1846.

"T. M." (Wandsworth).—Silver or plate, when tarnished, may be cleaned with a composition formed of the following mixture:—To half-a-pint of refined neat's foot oil, add half-a-gill of spirits of turpentine. Scrape a little rottenstone, wet a woollen rag, and dip in the rottenstone, and rub the metal well. Wipe it off with a soft cloth, polish with dry leather, and use more rottenstone. If the metal is steel, and much rusted, use some powdered pumicestone, on a separate woollen rag, first.

"An Engineering Pupil" (Greenwich).—The earliest received writer on steam was Hero, a philosopher of Alexandria, who flourished about 130 years before the Christian era. In a work written by him, entitled *Spiritalia seu Pneumatica*, a variety of devices are set forth for elevating liquids, and obtaining rotary motion by means of air and steam. This instrument for the production of rotatory motion is called the "Æolipile," and is identical in its features with engines lately constructed by Avery in America, and by Ruthven in Edinburgh.

F. Grimsey (Colchester).—The crusaders transplanted the chemical knowledge and views of the Arabs into Europe, where, agreeable with the mystical tendencies of the age, the theory of transmutation found especial favour, while it raised up persevering alchemists, who employed themselves in experiments, laborious as they were fruitless, for the purpose of obtaining gold from the baser metals, at the same time gave birth to a host of impostors, who turned the credulity of others to their own account. This rage for alchemy continued in Europe from the 13th to the 17th century; and, though it failed in attaining the end proposed, gave rise to the discovery of a mass of facts, which, had it not been for this thirst of gold, would in all probability have remained unknown. Among the most renowned of the alchemists were—Arnold de Villa Nova, in the 13th century; Raymond Lully, in the 14th; Basil Valentine (the discoverer of antimony), in the 15th; Paracelsus (the first public teacher of chemistry), in the 16th; Von Helmont (who was the first to distinguish various aeriform bodies by the name of gases from common air) and Libavius, in the 17th.

"L. T." (Coventry).—Scheele's green colour for painters is prepared by precipitating sulphate of copper, dissolved in water, by a solution of potash and white arsenic.

"W." (Margate).—Messrs. Schneider and Co. are the proprietors and agents for Napier's process of smelting copper.

"Chemicus" (Liverpool).—Dr. Ward, the inventor of many celebrated nostrums, was the first who introduced Valentine's method of preparing sulphuric acid in England. He obtained a patent for the invention, and for a considerable time monopolised the manufacture. Dr. Roebuck (ancestor of Mr. Roebuck, M.P. for Sheffield), an eminent physician of Birmingham, substituted an apparatus of lead for the glass vessels previously used. This was in 1746, since which the price of sulphuric acid has been greatly reduced, and the manufacturer, consequently, enabled to employ it for a variety of purposes to which it was previously inapplicable, from its scarcity and high price. In 1772, the first manufactory of sulphuric acid near the metropolis was established, by Messrs. Kingacote and Walker, at Battersea.

"Miner" (Redruth).—According to Dr. Ure, the composition of the Government gunpowder, as prepared at Waltham Abbey Mills, is—Nitre 75, charcoal 15, sulphur 10. French powder for the army, nitre 75, charcoal 12·5, sulphur 12·5. The average proportion of materials used in different kinds of powder was, nitre 75, charcoal 13·23 sulphur 11·77.

John Clarke (West Bromwich).—The Biscayan forge can only be used in countries where wood is cheap and abundant; it is somewhat similar to the Catalan forge, of which it is a variety. The tuyère is placed about 9½ inches above the bottom. The hearth is lined with a layer of charcoal dust and loam, worked together, and the ore, after being roasted, is sifted—the small powder being set aside to be used in the course of the operation. The ore is piled up on the side opposite to the blast, in a sharp saddle ridge, and it occupies one-third of the furnace. In the remaining space of two-thirds, the charcoal is put, to solidify the small ore on the hearth—it is covered with moist cinders, mixed with clay. The fire is urged with moderation during the first two hours—the workmen being employed in pressing down more charcoal as the former supply burns away, so as to keep the space full, and prevent the ore from crumbling down. After two hours the full force of air is given, at which period the fusion ought to commence. It is easy to see whether the torrification be sufficiently advanced, by the state of the flame and appearance of the ore; the workman now completes the fusion by detaching the pieces of ore from the bottom, and placing them in front of the tuyère. When fine siftings are thrown on the top, they must be watered, to prevent their being blown away, and to keep them evenly spread over the whole surface of the light fuel—they increase the quantity of the products, and give a proper fusibility to the slag. When the slag is viscid, the quantity of siftings must be diminished—if thin, they must be increased. The excess of slag is allowed to run off by the *chio*, or floss hole. The process lasts from five to six hours, after which the pasty mass is taken out and placed under a hammer, to be cut into lumps, which are afterwards forged into bars. Each mass presents a mixed variety of iron and steel, in proportions which may be modified at will; by using much of the siftings, and making the tuyère dip towards the sole of the hearth, iron will be the chief product; if the operation be conducted slowly, with a small quantity of siftings, and an upraised tuyère, the product of steel is more considerable. The weight of the lump of metal will vary from 200 to 400 lbs.

"C. E." (Islington).—The production of steatite is but inconsiderable in England. We have not been able to discover any parties having any to dispose of. In Norway, it is so cheap, that stones, weighing from 4 to 5 cwts., are sold for about 20s. Any Norwegian broker could obtain it from there in any quantity.

"A Secretary" (Austinfriars).—By the Scandinavian Mining Laws, each mine is divided into 120 shares (*kuxe*): an officer is appointed, who is denominated the *Berg Skriver*—his duty is to collect every month from each shareholder his proportion of the estimated capital required to work the mine. Any shareholder refusing to pay his quota, information is given to the "bergmester," who, at the end of three months, disposes of his shares for the amount they will fetch; should this not be sufficient to liquidate the liabilities of the three months, the defaulter's other property can be taken in execution. At the end of every six months the smelted produce of the mine is divided into 120 lots, and each shareholder is bound to fetch his produce in *natura* from the works. In very few instances is the produce sold and the proceeds divided; indeed, this could not be done without the consent of the whole body. Parties wishing to purchase largely, are consequently obliged to treat separately with each shareholder for his lot.

"C. L." (Brompton).—Many organic bodies emit light after death—sometimes before the commencement of actual putrefaction, sometimes simultaneously with it. With fish a freezing temperature interrupts phosphorescence—a slight rise of temperature increases it—a boiling heat destroys it. When left to itself, it continues phosphorescent for some days, until fetid putrefaction ensues, and the light disappears.

COPPER ORE RETURNS—*Errata*.—In our quarterly return of the Sales of Copper Ores at Swansea, in the Journal of the 7th July, there was an omission in the list of Australian ores—of Gilburra, 71 tons, 761*l.* 9s. 6d.; and Kapunda, 64 tons, 1159*l.* 8s.—making the return minus what it should have been, 135 tons, and 1920*l.* 14s. 6d. In the Irish tonnage there was also an error of 9 tons—it should have been 2763 tons.

THE ELECTRIC LIGHT.—"One Interested" is mistaken in supposing that we were influenced in our remarks by personal motives, or that we should give publicity to such a statement as that forwarded. We have already stated, that we know of an adverse report having been made, and which we believe to have been the cause of 10,000*l.* not being embarked in the speculation. When the matter is again before the public, we shall not be backward in our strictures, if we feel, as before, called upon to make comment.—Our correspondent's letter may then be of service.

COPPER SHEATHING.—We have experienced some difficulty in obtaining a copy of Mr. Vivian's paper, referred to by Mr. Prideaux in our last Journal, which, we now find, was published in the *Annals of Philosophy*, 1823. We hope, however, to be enabled to give it next week.

"A Shareholder" (Boulogne).—All the meetings of Cameron's Coalbrook Steam Coal and Swansea and Loughor Railway Company have been fully reported in our Journal, and have appeared on the Saturday after having taken place. The numbers can be obtained through a bookseller.

"C. B." (Carlisle).—There are two sorts of locomotives used on the American railroads. The one for light trains has six wheels, two of which are the drivers, 4 ft. 6 in. diameter—the cylinder 18 inches diameter. The gross weight of the engine is 22,215 lbs.; the weight on the driving wheel 14,325 lbs.; the average speed is 20 to 25 miles an hour. That for heavy trains has eight wheels, with four drivers—the cylinder is 18 inches diameter; the gross weight of the engine is 22,351 lbs.; the weight on the four drivers 15,833 lbs.; the average speed is from 15 to 18 miles an hour. The manufacturers are Messrs. Rogers and Co., of New York—the price is about $8000. In the *Mining Journal* of June 10, 1843, was inserted a drawing and detailed description of Messrs. Eastwick and Harrison's celebrated *Mercury*, eight wheels; and Mr. J. Weale, High Holborn, has published a work, entitled *Ensamples of Railway Making*, in which there is a good account of the construction of railroads in America.

*** It is particularly requested that all communications may be addressed—
TO THE EDITOR,
Mining Journal Office,
26, FLEET-STREET, LONDON.
And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, AUGUST 4, 1849.

THE MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

The great mechanical problem of the age—the raising of one of the large tubular girders for the BRITANNIA BRIDGE—will probably be commenced this day; and this, the most gigantic structure of this constructive age of wonders, will, it is to be hoped, soon be placed safely in its final position—a monument to the energies and perseverance of its constructors and the mechanical ingenuity of the time—an ingenuity, in a great measure, engendered and developed by the wants, and hitherto unthought-of mechanical requirements, in carrying out the railway system. We have said *constructors*, because, although the idea of a tubular bridge undoubtedly originated with ROBERT STEPHENSON, the mathematical deductions of HODGKINSON, and the practical tests of FAIRBAIRN, determined its shape, character, and mode of construction; and when complete, as in due time we heartily hope it may be, well can they afford to divide the honour of having been the means of raising the magnificent erection—a monument to all time of the engineering enterprise of the age, and a pattern to succeeding generations. For the information of such of our readers as may not be generally aware of the nature of the structure, we subjoin some information on the subject. A general impression prevails, that the floating of the tube to the foot of the towers, completed the operation; but which, in fact, was only a simple and preparatory achievement to the great and perilous feat of raising a mass of iron 460 ft. in length, and weighing 2000 tons, to a perpendicular height of 102 ft.

The preparations for raising such an enormous fabric, as may be supposed, are on a scale of immense magnitude—indeed, the engineers themselves wonder how machinery can be constructed safely to accomplish the purpose. The principal hydraulic press, the chief feature in the preparations, is a cast-iron cylinder, 11 inches thick in the solid, weighing 16 tons, having a piston 20 inches in diameter, and will be acted on by the water at a pressure of 8000 or 9000 lbs. to the inch; the stroke is 6 feet, consequently, after raising to that height, the tube of 2000 tons has to be secured in its place, while the pistons are lowered, and a fresh hold taken. There were several ways of effecting this, and probably more rapid, than the one Mr. R. STEPHENSON has adopted; but, laudably determined that every due precaution should be taken against casualties, in which the labour of years, and half a million of money, would be sacrificed, he decided on building successive tiers of masonry under the tube, as it rises at every 6 ft., and this process of building up will cause the operation to last a fortnight, which by other, but less secure means, might probably be completed in a day.

The hydraulic press, weighing entire 40 tons, occupies a chamber on the top of the tower, 29 ft. above the level on which the tube has to rest, and there are two smaller ones on the opposite tower, having pistons 18 in. diameter, which will act in concert. The enormous chains by which the tube has to be raised were constructed by HOWARD and RAVENHILL, and are similar to the chains of Hungerford Suspension-bridge; they consist of links 7 in. broad, 1 in. thick, and 6 ft. long, and bolted together in sets of eight and nine links alternately. They alone weigh 100 tons, and the arrangements of iron beams and clamps for securing a good hold at each end of the tube, and with ram-head of the press, weigh 200 tons more. The cross-heads, beams, and all the parts of this lifting apparatus, are formed of tough wrought-iron, every portion of which has been thoroughly tested. For further security, wooden wedges will follow the ponderous mass as it rises, so that should any unforeseen disaster happen to the chains, the tube itself might be saved. The first lift was intended to be made on Tuesday last; then it was postponed to Thursday, but from the extensive character of the mechanical arrangements, and labour required in the adjustment of the machinery, chains, and hydraulic presses, it was found absolutely necessary again to defer it until this morning, when we trust the most satisfactory results will follow the careful and highly ingenious preparations which have been made. Not only has much error gained ground respecting the floating of the tube being the final operation, but there is equally as much as to the construction of the entire bridge. It must be borne in mind, that on the successful raising of the one tube under notice, only one-eighth of these dangerous operations will have been effected. There are three towers in the straits—the Britannia Tower, on the rock of that name, being in the centre, and two piers on shore; consequently there are four lengths of tube, of 460 ft. Some little additional length on land gives the entire 1849 ft., and there being only one line of rails in each whole length of tube, of course two sets of such tubes are required to complete the structure; or eight tubes, of 460 ft. long, weighing each over 2000 tons, to be raised to a height of 102 ft. Although the floating and raising these remarkable structures are truly wonderful as engineering operations, the designing and construction as works of art are equally astonishing; and there can be no doubt, from the increasing and important traffic of the line, it cannot but be an erection of great practical utility; and though costly in the first instance, will be found in the end to have been a happy forethought, and place the names of its founders among the benefactors to engineering science, and the human race.

There are few persons, in any sense, intimately connected with the county of Cornwall, who are not aware that the late Lord DE DUNSTANVILLE was the holder of one of the best properties in that district. On the demise of that nobleman, the estates passed to his kinswoman, the Hon. FRANCES BASSET; and it is known that during the lifetime of Lord DE DUNSTANVILLE, as well as during all the subsisting occupation of Lady BASSET, that the trusts of this great property have been administered in a spirit of marked liberality, and consideration for the interests of its numerous tenantry. Considering these acknowledged qualities, we could not at all understand what her ladyship's steward meant, the other day, when he assembled the majority of the tenants at Tehidy Park, and, in the course of a tolerably long and an intolerably inconclusive speech, assured them of Lady BASSET's continued liberality.

Of course there was not a man among them that would not a deal rather receive the steward's official communication, that her ladyship would make an abatement in her rents, or lighten the mine dues to which she is entitled, than have that stated to them which they had previous reasons for knowing was perfectly true—viz.: that Lady BASSET was kind-hearted and considerate in her conduct towards those who have holdings under her, and towards her tenantry at large. We may be permitted to suggest to the steward, as an active and able man of business, which we believe him to be, that it would be more satisfactory and encouraging to the laborious tenantry of her ladyship, if he would signify what will be the time, and the extent of the allowance which is likely to be granted them. He is aware, of course, that a great weight presses at present on all the springs of industry—that both mining and agricultural pursuits need all the alleviations which the wealthy and the influential can bestow upon them—that property already realised has a vast advantage over property yet to be created—that to plough the soil, and to wait early and late for the showers and the sunshine of heaven—to pass days and nights in the caverned depths of mines—are very different occupations from those which fill up the happy days in the mansions of our rural gentry. For these reasons it is all the less their duty to be as men sitting indifferently on the green hills' side, and showing little interest in the fate of those weather-beaten men, who are still struggling with the storm, and of whom it is still uncertain whether they will sink beneath it, or reach the shelter of some friendly port.

It is at all times a source of regret when we feel called upon to express an opinion on the proceedings of companies, or individuals, calculated to deteriorate the value of the property, or detract from the character of parties; but a case before us, reported in another column (we refer to CAMERON'S STEAM COAL COMPANY), deserves at least a passing comment. This company was formed some few years since, and held out good promise of yielding large returns, which, we think, may yet be realised by economy being observed, a good working direction formed, and the necessary capital supplied, it being a *sine quâ non* that concessions, and those of an ample nature, be made by the vendors. A brief narrative of the case may be useful and instructive antecedent to the adjourned meeting, when, we presume, some decisive measures will be adopted either to prosecute the working of the colliery, by supplying the necessary funds, which, it must not be disguised, will amount to a considerable sum, if the liquidation of the present claims be contemplated; in addition to which is the construction of a line of railway, and the working capital necessary for so large an output as that named, and which must be at least very considerable to afford returns to the shareholders.

It is well known that a large proportion of the shares—say three-fifths—were retained by the vendors as part purchase-money; that a certain sum in cash was to be paid; that a certain royalty was also chargeable with a dead rent of 2000*l.* per annum; certain charges for interest, &c. It is also notorious that for the past twelve months squabbles have taken place, some 1500*l.* or 2000*l.* absolutely sacrificed for management and other attendant expenses, the works comparatively abandoned, and losses of no slight nature sustained from the disposal of property, and the cessation of the works.

It would appear, however, that some advance has been made by the board of directors towards arrangements, whereby a return may be looked forward to for the capital invested—we have before us certain, if not satisfactory, evidence, and to this point we shall now at once direct our attention. In the first place, the directors have entered into an arrangement with Mr. BURLS and his party, whereby they have relieved them from the liabilities to which they were subjected on 3655 shares, although the chairman, on a question being put to him, gave a reply, which we cannot, however, admit to be of the most satisfactory nature, as leaving it a matter of doubt whether the shareholders so transferring their shares, were released, or whether the responsibilities of the remaining shareholders had been increased. This we may observe, that the directors, in releasing certain shareholders from present and future liabilities, on payment of a given sum, without having first submitted the proposition to a special general meeting, and taking their opinion thereon, have acted without exercising that ordinary prudence for which we should have given them credit; while it remains to be seen how far their acts are legal, without being recognised by the body of proprietors, at a special general meeting, expressly called for that purpose.

The next question is the proposed concession on the part of the vendors. This must be left to the shareholders to determine; but we cannot help saying that with the interest retained by the family, and the fact of there being two of them directors, at the board who have now withdrawn at the moment when their services were most required—as we have a right to assume that they possess more knowledge than the whole of the rest put together—it is to be regretted that matters should have been managed as they have been.

It is somewhat curious, for we cannot believe it to have been intentional, that the transfer of the shares above referred to into certain directors names, (one of whom we believe has been withdrawn from the direction) and the terms, were not noticed in the report read to the meeting; neither was there a balance-sheet or accounts produced, whereby any information could be acquired, although such were said to have been duly audited by Mr. STRELLEY, and also had passed the ordeal of the firm of Messrs. QUILTER and Co., to their entire satisfaction. We repeat it is somewhat strange these accounts were not laid before the meeting; but we think we can well account for their not being pressed.

We have only, in conclusion, to observe that, with the heavy weight on the concern after the profuse expenditure which has taken place, and which must be considered as a burthen, or dead weight, a change must be made in more senses than one. Economy *must* rule, industry and ability *must* be secured, capital *must* be supplied, further concessions *must* be made, the 2000*l.* a-year dead rent *must* be modified, and other changes which are too apparent to require being specifically named *must* take place. We have to caution the independent shareholders, however, against certain changes which appear of late to have "come o'er the scene." Certain parties who forced their passage into the room at a former meeting, despite the police, we found on the present occasion to be extremely bland; and, if we mistake not, there is a something behind the scenes that we "know not of." We regret to be compelled thus to express our opinion; but, if rumours afloat be true, we have not said one-half—while the facts before us fully justify us in the expression of the opinions we have advanced. We shall watch the proceedings of the 16th inst. with more than ordinary interest, as we have ever done those which have already taken place, feeling an earnest desire to advance the interests of all parties, and to encourage employment being afforded where the prospects warrant the outlay of capital.

VENTILATION OF MINES.—The Committee of Inquiry into this important subject have now brought their sittings to a termination, and we are informed that, from the evidence which has been laid before them, the views of the committee are not at all favourable to the system of ventilation now adopted in the midland counties collieries. It appears that since the last inquiry, in 1839, little or no improvement has been made in the system of ventilation in these districts; while, in the north of England, a gradual system of scientific improvements is evidently being generally adopted. The report will shortly be published in detail, when facts will speak for themselves. Among the witnesses present was Dr. Reid Clanny, who was presented with a valuable testimonial in plate by a committee presided over by the Marquis of Londonderry for carrying into effect the construction of a safety-lamp capable of burning in an explosive atmosphere, in 1815, and for his continuous labours in the cause of science and humanity. There are nearly 1000 of these lamps in use in some of the most fiery mines in the kingdom.

MONMOUTHSHIRE RAILWAY AND CANAL COMPANY.—On Wednesday last, this company, in pursuance of their Acts of 1845 and 1848, became *exclusive* carriers on their lines of tram-road in the western vallies, as well as from Snatchwood, near Pontypool, to the Blaenavon Iron-Works. One locomotive engine, built by the Neath Abbey Iron Company, started from Newport with a light train of carriages at 7.50 a.m., reaching Blaina Church (20 miles) at 2 p.m., returning to Crumlin, with a train of 120 tons of railway bars, by 6 p.m., when a train of Mr. Morrison's coal, 80 tons, was added, making a gross load of 200 tons; this engine reached Newport late in the afternoon. Simultaneously with the starting of the above engine from Newport, another, built by Messrs. Stothert, Slaughter, and Co., started with a moderate train of empty carriages and waggons for the Victoria Iron-Works (21 miles), reaching there at 2 p.m. A load of 210 tons of iron from the Ebbw Vale Works being attached, the engine returned with the same for Newport. When near Risca, the engine, being unable to continue its load, from some cause or other, another engine was employed at the end of the train of iron to push forward and assist the engine in front; whilst doing this, one of the railway company's men, named Legg, got between the last engine and the last carriage, and was instantly smashed to pieces. A coroner's inquest is to be held on the body, and the case reported in the usual manner officially to the Railway Commissioners. We are informed that the engines several times got off the tram-plates, which will account for the long time taken in the journeys. Up to the present time, the powerful engines of the company (15 in. cylinders, and 19 tons each), have not accomplished anything approaching, either in point of speed or load, the duties of the engines belonging to the ironmasters now superseded—the latter being 10½-in. cylinders, and 13 tons each. The company are much concerned at, and the freighters likely to be inconvenienced by, the unsuccessful commencement of the "carrying obligation."

COMPANY OF COPPER MINERS IN ENGLAND.—This company was first incorporated on the 3d of August, 1691, 3d of William and Mary, in the names of Sir Joseph Herne, Knight, John Briscoe and Francis Tyson, Esqs., to become a body corporate in deed and in name for ever. The letters patent granted them several immunities, priviliges, powers, &c., in England. On the 23d of September this grant was further extended to Ireland, and on the 19th of Oct. enlarged to New England. In the 9th of Queen Anne these privileges were further confirmed. At this time the stock consisted only of 700 shares; in the year 1720, for the more effectual carrying on of their speculations, they determined to increase the number of shares to 21,000, thereby making a creation of 20,300 new shares. For this purpose, on the 20th of July, 1720, they entered into an agreement with Thomas Chambers, jun., John Essington, James Bradley, and Case Billingsley, of London, merchants. It appears that Thomas Chambers, jun., had taken under lease from the company certain copper works at Lower Redbrooke, in Gloucestershire, consisting of mills, furnaces, and forges for a term of 33 years, at a rent of 100*l.* per annum, being likewise possessed of certain interest in copper mines in Cornwall, and John Essington and the others having leased a copper mill at Wimbledon, for 31 years, at a rent, of 42*l.* per annum, on which they had disbursed the sum of 9400*l.*; it was agreed, on resigning all right and title to these properties, that they should be admitted members of the company, and partakers of the profits arising therefrom. The new shares were subdivided in the following manner:—Thomas Chambers, jun., 4300 shares; John Essington, 5000; Case Billingsley, 5000; James Bradley, 5000; for these they were to pay 5*l.* per share; 1000 shares, entitled maiden shares, were to be retained by the company as capital stock, to be sold, as the Governor and Court of Assistants might see fit; the 700 old shares were to remain standing in the names of the old proprietors; 17,000*l.* were to be paid Thomas Chambers for his interest, and 9400*l.* to the others, who were likewise to give up their private trade in copper—all copper and copper ore belonging to them to be taken at a valuation fixed by two umpires. As John Essington had taken great pains in making the copper smelting advantageous to the company, it was agreed that when the company were able to make a dividend of 10 per cent. or more per annum, out of the clear profits, a tenth of the 10 per cent. should be paid to John Essington and his heirs, so long as they were proprietors of 100 shares in the stock of the company. It may not be uninteresting to give the names of the proprietors of the original 700 shares, previous to the new creation of shares, with the number belonging to each individual; they were, Thomas Chambers, sen. (governor), 208 shares; Josiah Wordsworth (deputy-governor), 40 shares; assistants—Bryan Benson, 25; John Heathcote 10; Orlando Humphreys, 10; Sir Jacob Jacobson, 10; Theodore Jacobson, 10; Henry Lyell, 10; Balthazar Lyell, 10; Thomas Lombe, 10; Gabriel Smith 10; John Shore, 10; Robert Walker, 10; Josiah Wordsworth, jun., 10; members—Thomas Chambers, 20; John Essington, 10; James Gambier, 25; Joseph Gisbitzky, 12; William Heathcote, 10; Henry Harrison, 5; Robert Lancashire, 17; John Moore, 17; Thomas Woodford, 30; 176 shares were entered in the name of the governor, to be detained by the company, to make good the calls upon them, with interest. The transactions above referred to occurred in the year of the famous South Sea bubble. James Bradley, who was to have had 5000 shares assigned to him, for some cause or other was released from his contract, and, consequently, there were, 14,300 shares capable of voting, and 6700 maiden shares. Some dissatisfaction was expressed at the time, and a pamphlet was published, from which a few extracts, in conclusion, may not be inappropriate, when so much interest is excited as to the future fate of the company. It commences, by stating—"Perhaps the mystery of the intended 1000 maiden shares may appear in time, by comparing one thing with another, as also that of the 700 old shares, these being taken so covertly to be made stock, and preserved to those named proprietors in the schedule, whereas their whole property in them is only a rent of 100*l.* per annum from Thomas Chambers, jun., for 33 years or thereabouts; therefore, how can there be any equity of right to the said old proprietors, until the expiration of the lease. But as maiden shares they may be made good use of, as, without doubt, the 1000 maiden shares were designed to have been. It may be supposed that when the whole concern of this corporation was leased to Thomas Chambers, jun., the charter, or all the virtues of it, went with it, or they were in danger of a forfeiture, as from a *non-user*, for the company had the interest only in the annuity, or rent of 100*l.* per annum; and in virtue of that, the governor, deputy-governor, &c., was a mere feather for 33 years to come, only to keep up the corporation; the property of all the other things being in Thomas Chambers, though, by the way, the said Thomas Chambers, jun., appears in the schedule as one of the old proprietors of the 700 shares, so he became tenant to himself and companions, which may be, and hath been done, *on extraordinary occasions*, as this may be supposed to be. Now the secret is out, that the old 700 shares were so taken by the articles for a good cover to what follows; they were to be stock, without paying anything for them, though they were virtually sold for 17,000*l.*, as to all their interests, and again for 10,000*l.*, and yet to be preserved to the use of the old proprietors, notwithstanding they have not anything more than 100*l.* per annum for 33 years then to come, either in stock of trade, manufacture, &c.; what they may have after 33 years, or what interest, remains a secret, the charter being for ever. Can the old shares be so often virtually sold, and yet remain the property of the old proprietors? All their interest is leased out to, and afterwards assigned over by, Thomas Chambers, jun., for 17,000*l.* back again; and are they not sold again virtually by Thomas Chambers, sen., then governor of the company, for 10,000*l.*? Can they be thus virtually twice sold, and yet remain the property of the old proprietors. Surely the persons who made this contract had some consideration for making so wild a bargain, or some other reasons fit to be inquired into. Were the property in the 700 shares first, and the trade on a just and good economy, there might be a method soon found out to make every share worth the first 5*l.* per share paid for it. *Poor unhappy English Copper Company*, which now that is, or soon may be, worth something, must be broke up—that is, the company's effects sold in parcels, or the whole for what it will fetch, or the proprietors so discouraged and tired out, that they may sell out, and part with their shares for what they can get under the present discouragements; but this is not the *first time* it has been served so."

POLLUTION OF STREAMS BY WASHING ORES—IMPORTANT CASE.—At the Bodmin Assizes, on Monday last, before Mr. Justice Williams, a case of considerable importance to the mining interest (Tucker *v.* Fox and others) came on for hearing. Mr. Cockburn, Mr. Butt, and Mr. Smirke, were counsel for the plaintiff; Mr. Crowder and Mr. Smith for defendants. It was an action to recover compensation for injury received by plaintiff through defendants discharging a large quantity of water, saturated with salts of copper, from their works into the Seton river, with the water of which plaintiff irrigated his grounds, and which had poisoned and destroyed his crops of grass, and rendered them useless. He held an estate, called Tregonnie, near the mouth of the Seton river, and had been in the habit of using the water for his land, which deposited a rich manure, and fertilised his crops; until 10 or 12 years since defendants began to work the West and South Caradon Mines, when they took water from the river to wash their ores, and returned it in a poisonous state to the river, by which his crops were spoiled, and the land rendered useless. Two defences were set up—first, that they had acquired a right, by the unmolested enjoyment of the privilege for 20 years; second, that there was a custom in the county for persons working mines to discharge their refuse water, no matter what deposit it contained, into any stream, not being a navigable river. The facts of the pollution of the river were proved, and three witnesses were called to disprove the custom; but they proved such custom did exist. It was then urged by defendants, that their case had been established by plaintiff's witnesses; or they were prepared to prove it, and to show that, unless the custom did exist, mining must altogether cease. Mr. Justice Williams, in summing up, observed, that the defendants admitted that the plaintiff had sustained injury by the mode in which they had conducted the mine; but they said the plaintiff had no right to complain, because they were justified in these acts, and he was debarred from asking for compensation, by the existence of a custom in the county of Cornwall. This custom appeared to him to be of so very peculiar a nature that it would require, in his mind, an extremely cogent body of evidence to make it out; because it seemed contrary to natural justice that such a custom should exist, involving, as it did, nothing more nor less than this—that a person being in possession of property to its full extent, it was subject to the invasion by a perfect stranger, who had set on foot for his own benefit a particular manufacture. It was a strong thing to subject another to, because a person for his own benefit set about a work which was to conduce to his own profit, to subject another to have his property destroyed to any extent, in order that the other might work his property profitably. It savoured very much of injustice, and therefore the existence of the custom would require extremely cogent evidence. The mere fact that the owners of mines had, in point of truth, for a great number of years exercised this sort of easement of polluting the streams, and after so polluting them leaving them to their fate, and causing damage to others, ought to be received with a considerable degree of caution. If they thought that, through a feeling of good nature, a man who had sustained an injury had not complained, because he had not wished to interfere with a small matter which was for the general benefit of the county, that would carry the case no way at all; or, if they thought it was done because a man had conflicting interests, having, perhaps, a mine himself; or if there had been acquiescence, which was fairly attributable to anything but an acquiescence to a right which it was impossible to resist, it would be of no value at all. In order to be of value, the exercise of this *quasi*-privilege must have been shown to have existed as of right, because conferred by a custom. The most important class of proof was wanting—he meant a case where it had been shown that there had been an injury sustained, compensation sought, but successfully resisted on the ground of its being matter of right. In order to sustain a custom, it must be proved to have existed from time immemorial. The jury retired at a quarter-past twelve, and returned into court at a quarter-past five, when the foreman said they were not likely to agree, being divided equally. They again retired, when, in an hour, the judge sent for them, and they informed him they had not spoke on the subject since, as it was of no use. They were discharged without a verdict. This is the second cause at the same assizes, in which the juries have been discharged without a verdict, to the serious injury of the parties in them.

THE MINING INDUSTRY OF FRANCE.

[FROM OUR PARIS CORRESPONDENT.]

You may happen to remember, that in the letters which I wrote you immediately after the revolution of February, I expressed the opinion that metallurgic and mining industry would suffer less than any other from the political and mercantile crisis; and such has been the case. There have been none of the terrible disasters and wholesale suspension of operations which other branches of enterprise have had to suffer, and the depreciation in the value of shares and property in metallurgy and mines has, on the whole, been less considerable than was to have been expected. Still it must not be supposed that these branches have nothing to complain of; *au contraire*, they have been cruelly scathed, though not killed. The working of coal mines, for example, has fallen off considerably, owing to there being less demand for coal; and some of the principal of them have not been able to pay their shareholders anything. The working of other mines and quarries has suffered still more. The different iron-works, too, have, as a matter of course, been less active than they were; but having large orders to execute for the railways, &c., in pursuance of contracts entered into before the revolution, they have, speaking generally, kept up wonderfully well; and all the metallurgic and mining companies may boast of having submitted to sacrifices, in order to keep their men employed. The Company de la Loire in particular kept on all its hands, notwithstanding its losses were more than ordinarily heavy, the suspension of manufacturing industry at St. Etienne, Lyons, &c., having caused the demand for coal from its pits almost wholly to cease.

Of late things have mended, but it is much to be wished that new orders should reach our iron-works, and that the resumption of manufacturing industry in general should set our pits going. As for the future, everything, of course, depends on the march of political events, and they, unfortunately, are still in a sadly disturbed state, both in France and other parts of the continent. I still entertain the conviction that, when things settle down, the next great development of speculation will be in mines; and what confirms me in this is the fact, that several projects are already only waiting a favourable opportunity to be presented to the public. As in the case of railways, many of these schemes will seek the co-operation of English capital, and some of them will probably be good investments—all, perhaps, advantageous *temporary speculations*.

The vexed questions of an extensive diminution, or total abolition of the import duties on coal and iron is, of course, no longer heard of; but though amidst the political din it is allowed to slumber, be assured that it is not forgotten, and that at the proper time it will be brought forward; and I think that it is not unreasonable to anticipate that it will be favourably entertained by the Legislature, for how can the manufacturer, after going through such a fearful crisis, after being half ruined, be compelled to pay an immense price for coal and iron, when England and Belgium can give theirs at a moderate rate. All the reasons in favour of monopoly, never very just or strong, will scarcely be able to beat down that formidable argument, which the manufacturers will not neglect to urge—"we have passed through a revolution!"

The *Moniteur* publishes official returns of the importations made into France during the first six months of 1847, 1848, and 1849. They tell a fearful tale of the disastrous effects of revolution, but at the same time show that those which fall within your jurisdiction have suffered less, on the whole, than the others. The following are the figures:—

	First 6 months of 1847.	First 6 months of 1848.	First 6 months of 1849.
	Met. quin.	*Met. quin.*	*Met. quin.*
COPPER.			
From England	29,406	7,692	17,416
Chili	5,266	4,911	656
Other places	11,884	14,246	10,994
	44,556	26,849	29,066
TIN	5,039	5,861	5,248
CAST-IRON.			
From England	164,069	129,195	30,361
Belgium	395,304	182,099	110,229
Other places	19,222	14,544	15,682
	508,595	325,848	156,272
COAL.			
From England	2,303,145	2,376,414	3,041,087
Belgium	7,487,727	4,606,558	6,891,019
German Commercial Asso.	1,064,407	772,341	854,904
Other places	103,039	1,433	7,148
	10,958,318	7,756,746	10,794,158
LEAD	82,332	104,678	76,673
ZINC.			
German Commercial Association	7,195	518	1,790
Belgium	28,181	20,853	33,322
Hanse Towns	20,179	4,792	20,724
Other places	10,229	6,635	7,891
	65,784	32,798	63,727

The recent modification in the salt duties has been of some advantage to England, as it appears that in the past six months of the present year France has imported from her 32,830 quintals, whilst in previous years she did not import a pound; from Portugal 68,741 quintals have been received, and from other places 6070. It is not improbable that the export of salt from England to this country will become very considerable indeed when the use of it shall become more general, which it will do every month. English salt producers should pay attention to the market now open to them, and labour as much as possible to prevent the French from going to others.

The Department of Public Works has made some modifications in the literary and scientific qualifications required for admission to the National Mining School (*Ecole des Mines*), the consequence of which will be, that a greater number of young men will be able to avail themselves of the valuable instruction which the school gives. The department has further ordered that *foreigners* may be admitted on the demand of the ambassadors and ministers of their nation. This is well worthy the attention of such of your readers as may destine their sons to the mining profession, as it would be difficult to find better, or even such good theoretical and scientific instruction anywhere. The instruction is *gratuitous*, and the pupils must be from 18 to 25 years of age.

The Administration of the Marine will, on the 13th August next, receive contracts for the supply of 4000 tons of pit coal, and 30,000 hectolitres of small coal for furnaces, for the use of the port of Rochefort.

The development of mineral industry in this country has been extraordinary. In 1830 the quantity of coal produced was 18,626,659 metrical quintals, and last year it amounted to 47,000,000, and the importation from abroad has increased in a still greater ratio. In 1830 the production of cast-iron was 2,663,608 metrical quintals, and it now averages 5,000,000, and the imports have also immensely increased. The production and manufacture of iron and steel employ 50,930 men, the production of mineral combustible 693,200. The *value created* in mineral and metallurgic industry in France exceeds 17,000,000*l.* sterling annually.

THE LEAD TRADE.—The following accounts are taken from a publication, entitled *An Account of the Clear Profits of Extracting Silver out of Lead*: by the Governor and Company of the Mine Adventurers of England, dated 1702. The first was refined at the Black Raven, in Southwark, in the year 1699—1065 pigs and one sow of lead, containing 59 tons 8 cwts. 0 qrs. 16 lbs., at 11*l.* per ton, 658*l.* 9s. 6¾d. Charges on the same—workmen's wages, from 1st May to 15th July, 54*l.* 6s.; 14½ chaldron of coals, 14*l.* 13s. 10d.; 59 bushels of bone ashes, 11*l.* 16s.; building furnace, 21*l.* 16s. 7d.; quarter's rent at the Black Raven, 4*l.*; 351 casks for litharge, 29*l.* 2s. 6d.—total charges, 135*l.* 14s. 11d. The produce was as follows:—818 ozs. 0 dwts. 20 grs. bullion, at 5s. 6d. per ounce, 224*l.* 19s. 2d.; and 60 tons 2 cwts. 3 qrs. 2 lbs. litharge, 728*l.* 11s. 1d. The amount of lead and charges was 789*l.* 4s. 5¾d.; the total produce of the litharge and silver, 953*l.* 10s. 3d.; which left a profit of 164*l.* 5s. 9¾d., which would be 20*l.* 16s. 3d. per cent. clear profit on 789*l.* 4s. 5d. The second quantity was refined at Neath in the year 1700. The lead was 64 tons 6 cwts. 3 qrs. 18 lbs, valued at 8*l.* per ton, 514*l.* 15s. 8d. Charges for refining—9 cwts. 2 qrs. 7½ bags of coals, 9*l.* 13s. 1d.; 55 bushels of bone ashes, 11*l.*; wages, from the 29th July to 14th Sept., 38*l.* 14s. 3d.; 320 casks for litharge, 29*l.* 6s. 8d.; nailing and heading them, 2*l.* 13s. 4d.; three dozen candles, 13s. 6d.; smiths' wages, 1*l.* 5s. 8d.—total charges, 93*l.* 6s. 6d. From this was produced 687 ozs. 1 dwt. 3 grs. bullion, at 5s. 6d. per oz., 175*l.* 3s. 9½d., and 64 tons 16 cwts. 1 qr. 23 lbs. litharge, at 10*l.* per ton, 648*l.* 4s. 6d. The value of the produce was 823*l.* 8s. 3½d.; while the charges were 93*l.* 1s. 9d.—leaving a profit of 215*l.* 6s. 6½d., or 35*l.* 8s. 2½d. per cent. clear profit. The workmen's wages averaged about 1s. 6d. per day.

THE NEW ELECTRO-MAGNETIC ENGINE.

We have, on several previous occasions, noticed the successful efforts of Mr. Hjorth, in establishing the principle of electro-magnetism as a motive-power, and particularly described his large engine in the *Mining Journal* of the 16th June. A few days since we inspected a new arrangement of this engine, in which the stroke has been lengthened from 13½ to 16½ in.—the crank being now 8¼ in. from centre to centre. During the long and deep research into the powers and properties of soft-iron as a magnet, when involved in a current of galvano-electric fluid, it has ever been established as a fact in the principle, that the distance of the magnetic surfaces for all practical purposes was, at the maximum, not more than from three-eighths to half-an-inch, and hence the assumed impracticability of obtaining a sufficient length of crank stroke for any mechanical process of consequence, more particularly that of motive-power. In the arrangements of Mr. Hjorth's magnets there is certainly a new feature developed in the science, inasmuch as the distance from the two points of attraction at the commencement of the stroke is 4 inches, which points give the first impulsive movement, which is then taken up by the pointed rods in succession, as they enter the orifices respectively in the moveable magnets, and complete the remaining 12½ in. of the stroke; and the power of this magnetic impulse, as ascertained by a spring balance, was—at 4 inches, 80 lbs.; 2 inches, 124 lbs.; and 1 inch, 160 lbs. This increase in length of the points of attraction is well worthy the consideration of the electrician, as showing that much has yet to be learned of this interesting but mysterious element. Mr. Hjorth suggests—and we admit the idea is ingenious and probable, but will require some delicate experiments to prove—that the one set of magnets being hollow and conical, and the other presenting a square four-sided figure, a larger magnetised surface is exposed, and that rapid currents of galvanism, revolving from each, increase the intensity of the magnetic power, and thus cause a powerful attraction at hitherto unattempted distances. Whatever the cause, the fact is before us, and was witnessed by a numerous company of scientific men on Thursday last, who appeared unanimously convinced of the success of the principle, the only remaining difficulty being the production of a battery, which, from its economy, will make it commercially available. Pigot's battery, which Mr. Hjorth and his friends are treating for, and which we noticed in a former Number, was sealed up on 14th June last, still continues to give out the same uniform power as at the commencement; and the opinion is, that it may be considered a constant battery, and of great power for mechanical motive purposes.

PREVENTION OF SMOKE.

In addition to the description of a smoke preventing arrangement, adopted by Mr. Andrew Smith, in last week's Journal, we had an opportunity of inspecting another apparatus for the purpose, fitted to the furnace of Mr. Beckett's steam flour-mills in Barbican, on a plan patented by Mr. Godson, of which the following is a description:—The fire bars are so arranged as to leave an opening about 10 in. by 8 in. in the centre of the furnace; beneath this is fixed a square iron box, about 2½ ft. deep, having a moveable bottom, which rises and falls by means of a rack and pinion, the latter worked by a lever and catch. This box, being filled with coal, holds sufficient for about two hours' consumption; and, when firing is required, two or three movements of the lever raises the moveable bottom, forcing up the coals, previously in a highly heated condition, beneath the incandescent fuel on the bars, through which the gas, which is immediately evolved, passes, and nothing but carbonic acid and other invisible and incombustible gases pass up the chimney, the particles of carbon being completely and effectually consumed. When it is required to charge the box, a small grate, covering half its area, on each side the top is slid over it by levers, preventing the fire from falling in; the bottom is lowered, and a door is then opened in front, through which the coal is shovelled in until full, when the front door is shut, the covering grates withdrawn, and the whole is in a position for firing when required. We understand that one is also in operation, and gives every satisfaction, at H.M.'s Dockyard, Woolwich.

LIGHTHOUSE FOR CAPE PINE, NEWFOUNDLAND.

Mr. Alexander Gordon, who has constructed several lighthouses for the home and colonial Government, and which have been placed at Jamaica, Bermuda, Ceylon, and other places, on 23d April last received instructions to construct, with all possible dispatch, an iron tower and lanthorn, to be placed on Cape Pine—an isolated and barren rock off the coast of Newfoundland. The tower, erected by Messrs. Robinson and Son, Pimlico, was shipped within 82 days of the above date, and the light will be exhibited before the setting in of winter—a period unprecedented in the annals of lighthouse erection, and which is rendered more extraordinary by the difficulties to be encountered. The climate is most inhospitable, a wire-rope bridge will have to be swung from the shore to the rock, which stands 246 feet above high-water mark, and every article used in the erection, to the bricks, sand, concrete, and cement, has been shipped from England. There are no signs of population, the only inhabitants being a few wreckers, residing about three miles off. We have had an opportunity of inspecting the lanthorn and revolving light, which have been constructed by Mr. Deville, of the Strand, and which was shipped for its destination in the course of the week. The whole is of the most massive character, suitable for withstanding the severe shocks it will be subject to in that stormy region. The sash bars are of thick brass, highly finished, which will be fitted with double plate glass squares, the outer ones half-an-inch thick, and the inner ones three-eighths, the purpose being to keep the outer panes cool, and thus the melting of the falling snow, and consequent obscurity of the lanthorn, be prevented. On the land side, where the light is, of course, not required, there will be an internal oak pannel, and an external one covered with copper; the tower is formed of cast-iron plates outside, bolted and screwed together, and sheet-iron internally; the roof is of thick sheet copper, surmounted with a vane, and surrounded with a strong brass gutter, principally as an ornamental rest for a ladder, when required. The lanthorn is surrounded with a strong balcony, to enable the keeper to clean the glass. The light consists of four sets of Argand lamps, four in each set, making 16 lamps in all; to each there is a parabolic reflector made of thickly plated copper, 19½ inches deep, by 21 inches diameter, which, we understand, are the largest ever constructed, the revolving apparatus is a strong and well-finished piece of mechanism, formed principally of brass, and is put in motion by a weight of 5 cwts. The four light-faces revolve once in one minute and one-third, thus showing to a ship at sea three lights and three blanks alternately per minute, and it is calculated that in clear weather it will be visible from 25 to 30 miles distance. The rooms will be fitted with cooking and warming apparatus, and every precaution has been adopted to secure the safety and comfort of the inhabitants. Mr. A. Gordon has proposed, that as one-half the year off this dismal coast the whole atmosphere is saturated with thick fogs, instead of bells or gongs, the erection of a screaming apparatus, actuated by high pressure steam, or by bellows worked by a horse, with parabolic sound reflectors to carry it seaward, and though he has been much thwarted in his views, he expects to carry them out in this case. This part of Newfoundland is, probably, the most dangerous on the whole American coast, and the lighthouse will be a most timely advantage to navigators; as, however, it will be comparatively useless in foggy weather, some sound signal is, doubtless, required.

IMPROVED IRON PIPES FOR WATER, GAS, AND DRAINAGE.—Sheet iron pipes of a peculiar description were patented in 1838, by M. Chameroy, a French engineer, and which have in France been extensively employed for gas, water, and drainage—being, as numerous testimonials show, more economical than cast-iron, possessing freedom from all leakage, are uninjured by salts or acids, bear great deflection without injury, and for water are far more conducive to health. Messrs. Fox, Henderson, and Co., of the London Iron-Works, Birmingham, have purchased the exclusive license for their manufacture in England, and erected machinery for executing large contracts. They are made of sheet-iron, bent to the requisite form, strongly rivetted together, and coated with an alloy of tin; the longitudinal joints are also soldered, rendering them air-tight and waterproof. For additional stiffness and protection they are then coated on the outside with asphalte cement, and when intended for water, the inside is also coated with bitumen, which resists, like glass, the action of acids and alkalies. They become so elastic by these processes, that an 8-inch pipe will bear a deflection of 1 foot in 50, without leakage at the joints, or injury to the pipe itself. The vertical joints screw together similar to a cast-iron gas pipe.

IMPROVEMENTS IN PUDDLING IRON.—In the usual mode of puddling iron the furnace is prepared by the introduction of roughly pulverised iron ore, or scoria, which is accumulated against the sides; this defends the plates, bridges, and bottom from the action of the melted iron; but a portion of it will collect in the interstices between the particles of scoria, from which it cannot be separated, and a loss of iron is the result. An improved method of preparing the puddling furnace has been patented by Mr. G. Williams, of Tipton, briefly referred to in our columns of the 21st July last. It consists in reducing the iron ore, or scoria, to a finely pulverised state, mixing the same with water, which is then tempered to the consistence of clay, and moulded into bricks, or suitable shaped pieces. These are used to line the interior of the furnace, cementing them together with a mortar or cement, formed by mixing powdered iron ore, or scoria, with water. The paste, or clay, may be formed into slabs or plates, instead of bricks, and the patentee does not confine himself to scoria, but to other fire-resisting substances, to line the puddling furnace.

Original Correspondence.

SOUTH AUSTRALIAN COPPER AND THE MINERALS OF CORNWALL.

SIR,—I remarked, in your last Number, that amongst the latest intelligence from South Australia, you announce that "Messrs. Penny and Owen had succeeded most admirably in their copper smelting at Aporinga. It will be sufficient to say, that in a single operation, and six hours after the furnace is charged, the copper is turned out as tough and as fine as it was ever produced in Swansea, or anywhere else, with the seven processes then (now) in use." Here, then, is confirmed the fact which appeared in my letter in your Journal of February 26th, 1848, where I said that, "It is not perhaps generally known that, with the vast abundance of copper ores in South Australia, there is at least one species found in large quantity, from which the purest copper can be obtained at a single operation." The above-named gentlemen are also doubtless acquainted with the principle on which they can assure themselves, that they may at all times produce pure copper at one operation.

Although, in South Australia, improvements in smelting copper can now hardly proceed any further for a long series of years, yet there has been (but too long for this country) a much greater field here for improvements in this and other chemical arts, the early adoption of which would have tended considerably to the benefit of Ireland and Cornwall. On this subject I can speak from extensive experience. And it is my firm belief that, as far as regards the county of Cornwall, there was no occasion whatever for the expatriation of the hundreds—nay, the thousands—of miners who have been lately obliged to seek their fortunes in a foreign land; the plain truth being, that they were driven forth in consequence of neglect of the vast mineral resources of their county. Again, I must repeat that, from personal experience, alum and some other chemical products can be made cheaper in that county than in any other part of the kingdom. For instance, common alum can be profitably made there at 5*l.* per ton, and the finest at 6*l.* 10s. The lowest price of the same articles in the London market are respectively 9*l.* and 10*l.* 10s. per ton. The low price at which alum can be manufactured in Cornwall is partly a consequence of the great abundance of the finest clays and of iron pyrites. At Whitby, in Yorkshire, where alum has been made for many years, no less than 61½ tons of raw material are required to make one ton of alum; whereas by using the purer materials of Cornwall, 3 tons of the raw material will produce 4 tons of alum, the increase in weight of the product being accounted for by the alum absorbing 45 per cent. of water. Now, as the annual value of this manufacture in the United Kingdom is not less than 200,000*l.*, of which there were exported in 1847 about 1400 tons, of the declared value of "14,968*l.*," we have even in this article of commerce some slight knowledge of the advantages which Cornwall possesses. And I may add that, in many other commercial products (in which copper is included), its advantages are not a whit inferior to those just described.

August 2. WILLIAM BIRKMYRE.

SMOKE NUISANCE—ARGAND FURNACE INFRINGEMENT.

SIR,—In an article headed "Consumption of Smoke," which appeared in your Journal of the 28th July, you have inadvertently given publicity to a statement so highly injurious to the scientific merits of the Argand furnace, the patented invention of Charles W. Williams, Esq., of Liverpool, that I am sure you will avail yourself of the earliest opportunity to correct the false impression it is calculated to convey. Mr. C. W. Williams, you say, in his patent, admitted air by "perforated plates in the sides of the furnace behind the bridge." Now, I have seen some hundreds of Mr. Williams's furnaces, and certainly never saw or heard of one so constructed. You go on to observe, that Mr. Joseph Williams employed also "a perforated plate, but placed in the ash-pit beneath the furnace, immediately in the rear of the bridge." I have seen Mr. Joseph Williams's furnaces in course of erection, and can confidently state that this description of his plan is quite incorrect, his principle being the use of two hollow bars in the furnace to heat the air, without any "perforations" whatever for its escape.

The diagram which you give of the furnace at Wapping is an exact representation of the patent Argand furnace, arranged for a small boiler furnace, such as I have frequently seen. You represent and describe the apparatus as a perforated tube, "immediately behind the bridge, of a size in proportion to the area of the furnace." If you refer to *Newton's London Journal* for March, 1840, vol. xv., you will find at p. 401 the full details of Mr. C. W. Williams's patent, from which I will only quote three passages to the point:—"This invention (he says) consists, first, in the peculiar construction of certain parts af the furnace called the bridge, or flame bed, and the application of certain flattened or circular perforated tubes connected therewith, by which I effect a quicker and more complete incorporation of the combustible gases issuing from the coal, or other fuel in the furnace, with the atmospheric air, and by which incorporation a more perfect combustion of the gases is effected, and the formation of smoke prevented." Further on he remarks—"As I do not confine myself to the particular *number, dimensions*, or *situation*, of the several parts here described, they may be varied to suit the constructions of furnaces and boilers, and the circumstances under which they may be placed, and which may be effected by any competent persons." Finally, in the enumeration of his claims, he uses this plain unmistakeable language—"I *specially* and *exclusively* claim as my invention the use, construction, and application of the perforated air distributions, by which the atmospheric air is more immediately and intimately blended with the combustible gases generated in the furnace."

Your Journals of 1843 and 1844 so fully discussed this subject, that I should have hesitated to trouble you with these details, had not the tendency of the article in your last week's paper been to lead your numerous readers to suppose that you were offering to them a new, simple, effectual, unpatented invention, which they might adopt at a trifling cost, without being amenable for patent royalty. Such, however, you will perceive is not the fact, and that here, as too often happens, a really good invention has started up with a new face, to the satisfaction of multitudes; while in its original guise it struggled with difficulties of every kind, the result of prejudice and self-interest. Yet upwards of 600 Argand furnaces have been erected for marine and stationary engine-boiler furnaces, and various other descriptions of furnaces and ovens, with complete success, and I am pursuaded that nothing but ignorance of their value keeps them from being universally adopted. In his treatise on the *Combustion of Coal*, Mr. C. W. Williams very lucidly explains the folly and absurdity of attempting to *burn smoke*. Smoke is the result of the imperfect combustion of the crude coal gas evolved by every fresh supply of fuel. This impure coal gas, when well incorporated with a due supply of atmospheric air, produces a brilliant smokeless flame. Is it not so with a common Argand oil or gas lamp? In both cases we must apportion the air to the fuel, or *vice versâ*. The quantity of air that passes from the ash-pit through the bars and fuel is too small for the complete combustion of the great body of gas in an ordinary furnace, just after a fresh supply of coal. If we would retain this common furnace, avoid any provision for air, otherwise than through the bars and fuel, we must then resort to *slow combustion*, and the gradual regulated supply of small proportions of fuel, whose small volume of gas will thus meet with oxygen sufficient. This is the principle of all revolving grates and self-feeding furnaces; for, as in the case of the Argand lamp, we must turn up the wick, or turn on the gas in such proportion as to consume all the gaseous fuel, and never once attempt the chemical absurdity of making smoke, under the impression that we can afterwards consume *that* smoke so produced. HENRY DIRCKS.

Moorgate-street, City, July 29.

THE SMOKE NUISANCE—MR. C. W. WILLIAMS'S PATENT.

SIR,—In an article in your last week's Number, headed "Consumption of Smoke," I observe that in reference to the plan of Mr. Andrew Smith, you have noticed my patent, which has been in successful operation for many years. It is so long since the subject of that patent was discussed in your Journal, that I am not surprised at your having forgotten its details. The mode in which the air is said to be admitted in my furnaces is incorrectly given by you, while you have most correctly stated it when speaking of the plan of Mr. Smith—viz.: "The admitting atmospheric air in a finely divided state immediately behind the bridge, where it comes in contact with the gases evolved from the fresh supply of coals laid on the incandescent fuel, *in addition* to that admitted through the ash-pit and bars;" and again admitting the air by means of a tube laid across the furnace, immediately behind the bridge, &c., and perforated with holes. Now, it is impossible more accurately to describe, not only the mechanical arrangements, but the scientific principles of my patent. To put this, however, beyond doubt, you have given at page 362 a diagram of what you consider Mr. Smith's plan. This diagram, Sir, is an identical representation of my patent, as applied to many furnaces, two of which, being in public establishments, I will here refer to—viz.: the water-works pumping-engine, and the stationary engine of the railway, at Edge-hill, both in this town. Having sold my patent many years since to Mr. Dircks, I am not authorised to interefere, and that gentleman now being in London, and not having an agent in Liverpool, every bricklayer and pretender affects to be a smoke burner, on the principle of my patent. How Mr. Dircks will deal with this unmistakeable infringement on his rights I cannot say.

CHARLES WYE WILLIAMS.

Dublin Steam-Packet Company, Liverpool, July 31.

PROSPECTS OF MINING INDUSTRY.

SIR,—An article appeared in your valuable Journal of the 21st April headed "Prospects of Mining Industry," and from my knowledge as a resident of five years in Hungary, and acquainted with all the movements under the late administration, and Kossuth's opposition, I must say that your correspondent, by his remarks, has evidently been greatly misled in his information respecting the true state of Hungary; and in his comments upon the advantages of a railway to connect the Danube with the Adriatic Sea, or from the port of Fiume to Semlin, certainly leads me to suppose that he is totally unacquainted with the lower part of Hungary, and the nature of the localities through which such a railway must necessarily pass. In the first place, the railway projected by M. Kossuth was from Fiume to Vukovar, and to be called after that name, and not to Semlin, as stated by your correspondent. The Danube steam-boats were to communicate from Vukovar to Pesth, and upwards; while the steamers downwards were to take Semlin, Orsova, Drenkova, and the other towns on the Theiss, Save, and Drave rivers. As soon as M. Kossuth made known his project, it was ridiculed by every merchant, both in Pesth and Vienna, as such a railway would be for three or four months in the year totally useless—the steam navigation of the Danube, and other rivers, during the winter, being entirely suspended; consequently all communication by water must be cut off at Vukovar with the other places; and even the present road from Karlstadt to Fiume is sometimes, during the winter months, from 10 to 12 weeks impassable even for foot passengers, on account of the *Borea*, and the immense quantity of snow by which the road is interrupted—in fact, for weeks no road can be found. Another apparently insurmountable obstacle arises, from the generally-received opinion that "a railway can never prove a remunerative speculation in such a country." The distance from Fiume to Karlstadt is 100 English miles, with scarcely a house, or a trace of vegetation—nothing but one series of barren rocks the whole distance; and in the first three and three-fourths German miles from Fiume, the elevations of the present road are as follows:—The first milestone is 994 ft.; second ditto, 1581 ft.; third ditto, 2561 ft.; third and three-quarter mile, 2936¾ ft.—summit of Ravno Padolje above the level of the sea at Fiume. The distance from Fiume to Ravno Padolje, in a straight line, is not more than seven or eight English miles, and the elevation, 2936¾ German feet; and this I believe to be the lowest point of elevation of the mountains which divide Hungary from Italy; while on either side of the present road, the mountains rise to the height of 4000 ft. above the level of the sea. Again, if a railway is ever constructed over these mountains, it must be covered in for at least 40 miles. These difficulties might certainly be obviated, and would be a work of time, but it ultimately would be the complete salvation of Hungary—namely, by making a tunnel from where the Kulpa River takes its rise through the mountain to the Grobniker Feld: the distance would be about 4000 German fathoms, or about 8500 English yards. The elevation of the mountain through which such a tunnel would pass, is about 4500 ft.; consequently, it could only be worked at the two ends, which would take about 15 years to complete; but a railroad over the mountains will always be attended with the greatest difficulties from the snow in winter; and if a tunnel was made where I have proposed, all these difficulties would be avoided. In fact, until Hungary has some outlet for her productions, I cannot see how she can exist as an independent nation. As Austria will impose a duty on all articles that pass her frontier, Turkey and Russia will do the same; and to get merchandise from the interior of Hungary to the Adriatic Sea over such elevations as I have described, is more than equal to any tax their neighbouring states may impose. Your correspondent also mentioned that the rails and engines might now have been making in England for the Fiume Railway. Here he is also in error; as the rails for all the railways in Hungary were to have been made in that country. However M. Kossuth might now be inclined to open a market with England, it is well known that, in 1845, he issued proclamations throughout Hungary that no person was to either use or wear any article whatever that was not Hungarian manufacture; thousands of the people signed this proclamation.

With your permission, Mr. Editor, I will renew this subject next week, when I will submit a somewhat extraordinary statement of facts, in reference to M. Kossuth and his friends. GEORGE SHEPHERD, C.E.

Fleet-street, August 1.

COALS FOR THE STEAM NAVY.

SIR,—An article headed as above, in the *Mining Journal* of the 28th July, is calculated to make impressions as to the economic value of the different specimens of coal submitted to certain experiments, which, in the long run of time, may not realise the expectations of the Admiralty, or of steam-vessel companies, for the following reasons:—

The quantity of water evaporated does not represent the relative motive power derived from various specimens of coal, when taken independently of the pressure on the water, or of the elastic pressure of the vapour produced. As no particular pressure is stated in the report, it may be supposed the water was vaporised under the pressure of the atmosphere, which is liable to an extreme variation in the proportion of 28 to 31, when measured in inches of mercury, or by the barometer. Of the Welsh coal reported, 1 lb. of Thomas's Merthyr vaporised 10·16 lbs. of water, and the same weight of Neath Abbey vaporised only 9·38 lbs.—therefore, if in the latter case the barometer should have happened to stand at 31, and in the other at 28·62, the evaporative value of *equal weights* of the two specimens of coal would be the same.

The water vaporised by a cubic ft. of Thomas's Merthyr was 538·48 lbs., and by the same bulk of Neath Abbey 556·23—therefore, if in the latter case the barometer were at 28, and in the former at 28·92 inches, the evaporative value of *equal cubical quantities* would be the same. The excess of pressure in respect to the *weight* of the coal is 2·38 inches *plus*, and in respect to the cubical measurement it is 0·92 *minus*—being an anomaly requiring explanation.

The specific gravity of Thomas's Merthyr, as stated in the report, is 1·3, and of Neath Abbey 1·31—therefore, when the weight of the former is 53 lbs. per cubic foot, the weight of the latter, when actual equal quantities of coal are contained in the measure, would be (as 1·3 : 1·31 :: 53) 53·4 lbs. But the weight given in the report of the experimentalists is 59·3 lbs., being a difference of nearly 12 per cent., and which, supposing the specific gravity of each specimen to have been given correctly, must be assigned to the circumstance—accidental, no doubt—of the Neath Abbey coal having been put or packed more compactly in the measure than Thomas's Merthyr. By such reasoning only is the anomaly to be explained, and, therefore, the experiments are valueless as to the water vaporised by equal cubical quantities of the various specimens of coal.

By comparing Nixon's Merthyr with Neath Abbey, the specific gravities being the same, 1 lb. of the former evaporated 9·96 lbs. of the water, and the same weight of Neath Abbey evaporated only 9·38 lbs.; whilst a cubic foot of the former evaporated only 514·93 lbs., and the same measurement of Neath Abbey is stated to have evaporated 556·23 lbs.—so that the coal which by weight evaporates the greatest quantity of water, by measurement evaporates the least; or when the relative evaporative value of 100 *pounds* is 94·2, the same of 100 *feet* is 108·2, and the difference being 14 per cent. in the comparison so made, is occasioned by the measure having been unequally filled, and in such manner as to contain a larger quantity of the one kind of coal than of the other. Hence, unless the Admiralty and steam-vessel companies, contrary to Act of Parliament, purchase fuel by measure, they had better look to its evaporative value in respect to its weight, as to prime cost, and to its specific gravity as to the space it occupies in the vessel—that is, supposing the various specimens to be in similar sized pieces.

Besides the difference in the experimental results, which might arise from variation of the atmospheric pressure, a further difference would ensue, in case the water, when pumped into the boiler, were in the various experiments of different temperature, but which is likely to have been guarded against. Moreover, what renders the entire experiments next to valueless in my estimation is, that no account is given of the time in which equal weights of coal were expended, which is as essential for the practical use of the engineer as the quantity of water vaporized and the pressure of the steam produced; for, if equal weights of different specimens of coal be consumed in different times, although the quantities of steam produced and the pressures may be the same, when generated under one and the same experimental boiler, in actual practice, the boilers of a steam-engine and their heating surfaces must be directly proportional to the time in which, by experiment, each specimen of coal has been found to last. Thus, supposing equal weights of different coal to have produced equal quantities of vapour in times, which are as 9 to 10, the heating surfaces and the fire grates of two boilers, to produce the same motive power in any given time, would be required in the same proportion—in other words, the boiler, if intended for the coal which lasts the longer time, as that represented by 10, would be required one-ninth greater, as to heating surface, &c., than would be required if the coal intended to be used were that which is consumed in the shorter time. Hence, in the construction of an engine, it is as essential that the engineer be informed of the time in which any quantity of water is vaporised by any particular coal intended to be used, as of the quantity of water thereby vaporised and the pressure of the vapour. Without intending any severity of criticism on Sir Henry De la Beche, or other individuals, it may be observed that the laxity of observance of little incremental facts, affecting the whole question intended to be embraced by the experiments, is only a fair sample of daily occurrence, when governments and bodies corporate delegate to others matters of which they, the delegators, have little knowledge, and when such patronage is confided to too many persons, of which no individual feels as the responsible agent, it is likely enough that each one may not be impressed with the fiduciary responsibility which his appointment has cast upon him. Then, as our Lords of the Admiralty, however competent as tars to hold the helm, direct the course of, or rig a ship for sailing, it is to be doubted if the best of them be better qualified to judge of the value of the experiments which have been presented before both Houses of Parliament than when they still ranked amongst the middies.

Holding these impressions, I very unscrupulously advise that, in case of such experiments being repeated, it might be profitable to note the available power produced in equal times from equal weights of different specimens of fuel, which might be expressed by $q\ t$,—q being the volume of steam, and t its temperature (by a true scale) proportional to its pressure. Then, using the same symbols to represent the volume and temperature of the matter which passes into and up the chimney, the proportion would be known with some degree of exactness, of the available value of the fuel as to the motive-power generated therefrom, and accordingly as the draught may be varied, and by which calculation there would be a check upon the chemical analysis of the various specimens of fuel upon which the experiments are made. In making such calculations, it is essential that a true scale of temperature be employed, which is neither to be found in Celsius nor in Fahrenheit; but I have reason for saying that a paper, entitled "The Temperature of Steam and its corresponding Pressure," is likely to be read by the Royal Society after their present recess, and in which a true scale of temperature is described.—JOHN CURR: *Upper Penton-st., July* 28.

[We insert our correspondent's communication, although we think, had he referred to the report under notice, he would have been spared much useless calculation, as the results given are from the most comprehensive data, and chemical research, founded on true mathematical *formulæ*. We could not give an extended extract from a voluminous report, and merely took at random 12 kinds of coal to show its general value, and the proportionate weight of the coals in respect of their cubic contents. In addition to the returns we gave, the tables in the report give the difference between the theoretical and economic weight, ratio of one to the other, and the number of pounds of water evaporated per hour; and in each of the experiments is given, for each of the three days they were followed up, the following details:—Time of lighting fire and steam up, weight of wood used, initial temperature of water in boiler, temperature of water in tanks, barometer, extremes of external thermometer, internal ditto, dew point, area of damper open, weight of coals consumed, weight of ashes left, per centage of combustible matter in ashes, weight of cinder left, per centage of combustible matter in cinder, weight of clinker in cinder, average weight of soot in flues, per centage of combustible matter in soot, weight of water evaporated. We give this statement in justice to Sir H. de la Beche and Dr. Playfair, who, Mr. Curr will find have not been quite so lax in their experiments as he would assume.]

VENTILATION OF MINES—SAFETY-LAMPS.

SIR,—The numerous fatal accidents which have recently occurred from the explosion of fire-damp in coal mines, have induced me to devote some little attention to the subject of safety-lamps, as I believe that, even under the most improved systems of ventilation, explosive gaseous compounds will occasionally collect in dangerous quantities; and as my observations, though yet incomplete, furnish an additional proof, were proof wanting, of the insecurity of the lamps now in use, I will briefly describe the experiment, and then, with your permission, submit, for the consideration of the more experienced readers of the *Mining Journal*, the question of its applicability to the explanation of some of those catastrophes—the origin of which has hitherto remained unaccounted for.

Experiment.—Five or six grains of gunpowder having been wrapped in a piece of paper, or tinfoil, the small cartridge thus formed was tied to the upper end of the safety trimmer of the Davy lamp, in such a manner as to be out of the reach of the flame when the wick was lighted. The gauze cylinder was then screwed on, and a jet of coal-gas directed against its walls, so as to maintain in its upper part a mass of flame. On then igniting the gunpowder at the wick, the flame near the top of the cylinder instantly passed through the apertures in the wire gauze, and lighted the jet of gas on the exterior of the lamp. A similar experiment was performed with Dr. Clanny's improved lamp, and with precisely the same effect—the formation of a mass of flame in the upper part of the gauze cylinder, and its subsequent communication to the external jet of gas, on the ignition of the gunpowder, occurring with the same facility as when the Davy lamp was used. In repeating these experiments, some care is necessary to prevent the gunpowder from exploding before the mass of flame is formed in the upper part of the cylinder.

The immediate cause of this transmission of the flame to the exterior of the wire gauze, is, doubtless, the same as in the well-known cases, where a strong current of air has been found to act in like manner—the effect being simply due to the mechanical force pressing the flame against the wire gauze. It becomes, therefore, most important to determine whether the ignition within either of these lamps, of even a small quantity of explosive gas, at a moment when the upper part of the cylinder contains a large mass of flame, will not create a sufficient amount of pressure to force that flame through the apertures in the gauze, and thus produce the dreaded result.

This part of the subject does not appear to me to have received the attention which it merits; for I cannot but think that in some of the unexplained fatal accidents—*e. g.*, that in Walls-End Colliery in 1835, when 101 lives were lost—the communication of the flame to the external explosive atmosphere took place in the same manner, and from an agency precisely similar to that which produced the same effect in the experiments above described. GEORGE ROBINSON, M.D.

New Bridge-street, Newcastle-on-Tyne, Aug. 1.

VENTILATION OF MINES.

SIR,—I fear your correspondent, "O. N.," will have long *to wait* ere any one will be found *to affirm his principle of propulsion*, with reference to the ventilation of mines. It appears very evident that "O. N." is labouring under misapprehension as to what he terms the *exhausting* system of ventilation, when he assumes *a general diminution of pressure* to be consequent upon the introduction of a rapid current of air by the present method of ventilation, whereas *the only appreciable diminution of pressure* exists in the upcast shaft, when the air is rarefied by the effect of the heat from the furnace. However rapidly the air supplied by the downcast shaft may travel through the air courses, it will be found to alter very little in density, until it has passed over the furnace; and we might as reasonably assume that a brisk March gale is more *exhausting* than the gentle summer's breeze, as to suppose that such an effect is caused by the present process of ventilation, as is assumed by "O. N." Mr. Colwell's scheme, too, is equally absurd; for though in theory the relative gravity and places of the elements he names is correct, yet, in practice, these are usually so intimately blended together in the main air-courses, especially those which are constantly traversed by men and carriages, that it would be totally impossible to separate them by the futile method he proposes. If Mr. Colwell had combined with his plan the air-tight bags proposed by one of your correspondents, for carrying the obnoxious gases to the surface, and applied these for the purpose of emptying his aerial skimming dishes and "inverted umbrellas," the united concoctions might have claimed the first rank amongst the host of absurd projects which have been broached by sanguine theorists in your columns, for the accomplishment of this, their favourite crotchet.

I wish to observe, that I do not consider the trial of Messrs. Fourdrinier's

invention, by the breakage of the wire-rope at the Usworth Colliery, to be at all satisfactory, and feel fully assured that the result would have been far different had a common flat rope, or chain of equal strength, been the falling body, as the rigidity of a wire-rope, and its comparative lightness, offer no fair criterion to judge from on a point so *vitally important* as this.—THE BLACK DIAMOND: *Kilburn, July* 31.

[We are quite aware that a hempen rope, and more particularly a heavy chain, would have produced different results, and yet we think the circumstance alluded to highly satisfactory. It shows the superiority of the wire-rope in this respect; and, if generally used, coalowners would find it not only more safe, but in the long run more economical.]

THE BRITANNIA-BRIDGE AND ITS HYDRAULIC PRESS.

SIR,—By an article in the *Times* of the 31st July, it seems the cylinder of the hydraulic press is 20 inches diameter and 11 inches thick, and the pressure upon it is said to be 800 or 900 lbs. per inch. I believe the weight of the tube is about 2000 tons, one-half of which, together with the chains, &c., to support it, will be taken at 1200 tons, or 2,688,000 lbs. The area of the cylinder is 314 square inches, therefore the pressure on each square inch is $\left(\frac{2,688,000}{314}\right) = 8560$ lbs., instead of 800 or 900 lbs.

Taking 18,000 lbs. as the weight, which, being vertically suspended from, will break a bar of cast-iron 1 in. square $\left(\frac{18,000 \times 11 \times 2}{900 \times 20}\right) = 22$ is the strength of the cylinder when the stress upon it is 1, and the pressure 900 pounds per square inch. Taking the pressure as estimated above $\left(\frac{18,000 \times 11 \times 2}{8560 \times 20}\right) = 2{\cdot}3$ is the strength when the stress is 1.

Half the weight of the chains is 50 tons—the strength would be about six times the stress it will have to bear; and the chain being of malleable, and the cylinder of cast-iron, it would have been as well had the proportions been reversed.

I beg leave to subjoin the following general rule:—When any given weight is to be raised by an hydraulic press, the thickness of cylinder required is in the inverse proportion of its diameter, and its weight will, consequently, be the same whatever be its diameter.

Example: Suppose 1200 tons are to be raised by a press, of which the cylinder is 20 inches diameter, and that a bar of the same metal will just break with a vertical pressure of 18,000 lbs.: required the thickness of the cylinder, so that the strength be to the stress as 6 to 1.

$\frac{1200 \times 2240 \text{ lbs.}}{20^2 \times \cdot 7854.} = 8556$ lbs., the pressure per square inch of the cylinder.

$\frac{8556 \times 20 \times 6}{18,000 \times 2} = 28{\cdot}52$ inches, the thickness of cylinder required.

If the diameter of the cylinder were 80 inches, its thickness would be 7·13 inches, and the weights of the two cylinders would be evidently the same.—JOHN CURR: *Upper Penton-street, August* 1.

IRISH PEAT A MOTIVE POWER—COMMON ROAD LOCOMOTION.

SIR,—I read with great pleasure a statement made in the House of Commons by Mr. O'Gorman Mahon, intimating that some of the most valuable products are to be distilled from Irish peat. Now, Sir, permit me to ask, through the medium of your widely-circulated paper, whether the report, which I remember to have read somewhere, be true, that peat, on being dipped in nitric acid, is converted into a sort of pyroxyline, and becomes as explosive as gun-cotton? If so, my conviction is that peat, rendered explosive, will become of enormous value to Ireland in conjuction with the gun-cotton power engines, which have been recently brought to perfection by the Count de Werdinsky—(see *Mining Journal* April 14), and which alone seem to promise a chance of rendering mechanical locomotion on common roads practicable. If Mr. Owen's process of distilling from peat is not what is technically called *destructive distillation*, the fibre of the peat may, in that case, be rendered explosive by nitric acid, even after it be exhausted of its oily and volatile particles; and hence the very residue of peat will become a source of motive power with the Count de Werdinsky's locomotive engines, without the necessity of constructing any railroads. Such improvements and economy would be the means of establishing in Ireland cheap and expeditious transit for goods and passengers, and lay the foundations for extensive commerce, manufactures, and industry, and consequent prosperity throughout that country, the prostrate condition of which we now so deeply deplore.

Chadwell-st., Middleton-square, July 30. GRAF VON VIETTINGHOFF.

THE IRISH BOGS—A "SECOND CALIFORNIA."

SIR,—A statement was made in the House of Commons on Saturday, sanctioned and supported by so good and great a man as Lord Ashley, which, if not early contradicted, may lead many into error. What he supports by his high authority is, that the peat bog of Ireland, 100 tons, at a cost of labour, &c., about 16*l.*, will realise to the fortunate speculators the enormous sum of 91*l.* odd—and he calls this a second California.

Now, three years since a company was formed here among the merchants and tradesmen—their able chymist, the relative of the great Drew, who wrote the *Immortality of the Soul*, was manager—under six able directors; they leased the Government premises on Dartmoor, which were formerly occupied as and termed the French prisons; they erected steam-engines and laid out every apparatus considered necessary, with tram railways running across Dartmoor to the different bogs, where this peat could be had in the greatest perfection; they produced from it naptha, ammonia, grease for railways, or candles, or gas, &c. It was burnt and used, and the profits were held at as being equal to the Ashley statement, for his products are correct, But, somehow, or other, it is a failure; 20,000*l.* and upwards have been expended; my brother tradesmen, right and left, have suffered. Your correspondent here, or I, will furnish you, if worth your attention, with all particulars in figures, and the cause of failure.

Bedford-st., Plymouth, July 28. —— HENRY SEAMAN.

ABSTRACTS OF SPECIFICATIONS.

SIR,—I am glad to learn from Mr. Mitchell's last communication, that he does not impute any blame to me, in regard to my reports not being so full as in many cases (as in that of Mr. Mitchell's patent), from the importance of the invention, might be desirable; but if every patentee of an important invention would do as Mr. Mitchell has done—that is, send a copy of the specification, so that either the whole or the material portions of the document might be reported verbatim, all parties, whether readers or patentees, would have no cause to complain; and an important invention will even justify the insertion of two distinct notices, when the object of the second notice is to supply the want of detail in the first.

After what I have just said, it will scarcely be necessary for me to explain the nature of my protest, which Mr. Mitchell appears to have misunderstood. I supposed, when I penned that protest, that Mr. Mitchell, by his letter accompanying the specification, did cast some slur upon my reports, and I merely meant to protest against the patentee being considered competent evidence as to the correctness of the report, because he, being fully acquainted with the invention, would be apt to speak of it according to the fulness of his knowledge, and not merely according to what was recorded in the specification of the patent; and this notion is not hypothetical merely, for I remember a party complaining of one of my reports, who, when I had shown him that it was correct, according to the statement made in the specification, as enrolled, replied—"*then the specification ought to have been otherwise worded.*"

I trust that in future it will be understood by both readers and patentees, that I only engage to supply such fugitive notices of patented inventions as shall give a general idea of them (and practical experience teaches me that those who, under the present regulations, pretend to do more, only humbug the public), though, from peculiar resources at my command, I have frequently given nearly verbatim copies; and that it is understood, whenever the subject is worthy of it, the columns of the *Mining Journal* will be open to any further explanation, for such I believe to be, Mr. Editor, your standing order in regard to these matters. F. W. CAMPIN.

210, *Strand, August* 1.

RIVER WEAR VEND OF COALS.—The vend of coals upon the River Wear, for the half-year ending the 30th of June last, amounted, as we last showed, to 258,800 chaldrons, being a decrease of 64,983 chaldrons, as compared with the vend of the corresponding six months of last year; "which," says our correspondent, "is caused altogether by the blockade of the German ports." Amongst the coals shipped in the Wearmouth Dock, it may be remarked that 487 chaldrons were the produce of the Netherton Colliery, near Blyth, and were led there for shipment by way of the High Level Bridge across the Tyne. When the idea of shipping these coals at Wearmouth was mooted at Shields, a few months ago, a Newcastle conservator contemptuously remarked "that it was quite as likely for them to be shipped in the moon!"—*Gateshead Observer.*

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

WEDNESDAY ..Wheal Robina Mining Company—Webb's Hotel, Liskeard, at Three.
Hibernian Mining Company—offices, at Two.
Pembrokeshire Iron and Coal Company—offices, at half-past One.
THURSDAY ....Anglo-Italian Railway—London Tavern, at Twelve.
British Rock and Patent Salt Company—offices, at One.
Royal Bank of Australia—offices, at Twelve.
FRIDAY .....Eagle Insurance Company—Radley's Hotel, Blackfriars, at One.
Eastern Archipelago Company—offices, at Twelve.
SATURDAY ....Great Northern Railway—London Tavern, at Eleven.

[*The meetings of Mining Companies are inserted among the Mining Intelligence.*]

VAN DIEMEN'S LAND COMPANY.

A special meeting of this company was held at the offices, Winchester-street, Old Broad-street, City, on Thursday, the 2d inst., for the purpose of forfeiting shares on which calls were in arrear.

JOHN CATTLEY, Esq., having taken the chair, said the directors had deferred this meeting as long as possible, but they thought it only justice to those proprietors who had paid their calls regularly, that they should now at once strike off the register those names which they could no longer reckon upon as proprietors. (Hear, hear.) With regard to the list now to be read by the secretary, he begged to say that the directors had shown the utmost forbearance, both in consideration of the times and the circumstances under which this company had been placed. Even now, late as it was, if there were any of those unfortunates whose names were in the list desirous to redeem their shares from confiscation, he should be happy to erase their names from the list of defaulters. As every case which appeared on the list was utterly hopeless, as far as could be ascertained, he should at once call upon the secretary to read the list, and the resolution proposed for the consideration of the meeting.

Mr. HOWELL (the secretary) then read a list of 310 shares, and the names of the proprietors who were in arrear.

The CHAIRMAN said, that out of this number 310 shares belonged to their late governor and his family, but the parties were quite unable to pay the calls, which, he dare say, could be confirmed by Mr. Sheppard, whom he saw present. More than two calls were in arrear on all the shares now to be forfeited.

Mr. BROOKSBANK asked if this were the first forfeiture of shares?

The CHAIRMAN replied, that above 1491 had been forfeited some years ago. The whole number was not large, considering the unfortunate state of the company.

Mr. SHEPPARD hoped no person would be allowed to get off who had the means of paying; the person there mentioned, he understood, was likely to come into a considerable sum of money.

The CHAIRMAN said the party alluded to was quite unable to pay the call; he had so high an opinion of his integrity, that he once thought of paying the calls in arrear for him, to preserve the shares. There was one gentleman who stated he was only labouring under a present inability to pay his calls, amounting to about 300*l.*; but as he was in full expectation of coming into property in six or eight months, the directors agreed to take his acceptance for that period. He stated this to prove that the board had shown every disposition to accommodate parties in arrear. (Hear, hear.)

A PROPRIETOR observed that they ought to know what was the condition of the company before they agreed to forfeit these shares.

The CHAIRMAN said they could not enter upon that subject till the resolutions for which the meeting was called were disposed of. He could inform the meeting that there were now 676 shares on which less than two calls were due; they might hereafter be called upon to forfeit these likewise.

The resolution, forfeiting the 310 shares, was then passed unanimously.

Mr. BROOKSBANK asked what was the liabilities of the company.—The CHAIRMAN observed that about six years ago the board agreed, in order to induce parties to come on their lands, to take their produce for a period of seven years at fixed prices, which, under the circumstances of the colony, had turned out disastrous to the company. There was no alternative but to let the stipulation run out, which, he was happy to say, would expire in March next. (Hear, hear.) After that time he would tell them what the liabilities of the company were; at present he could only speak of their engagements.

Mr. WEEDEN asked what the last call would produce?—The CHAIRMAN replied, about 8000*l.* Although they had only about 3000*l.* directly to be met by this call, yet further demands might be made upon them all at once from the colony, for which the directors did not wish to be unprepared.

Mr. BROOKSBANK wished to know how the last call was met; how many paid it with a deep sigh, and how many paid it readily?—The CHAIRMAN could not say how many sighed—(laughter)—but, on the whole, it was met tolerably well. In paying that call, he must say that he sighed himself; and as he had several relations in it, more largely interested than himself, he dare say they sighed also. (Laughter.) However, after another 12 months, he hoped to see an end to those obnoxious calls. (Hear, hear.)

Mr. Brooksbank, Mr. Richardson, and another proprietor, spoke in favour of a committee of investigation to go into the expediency of winding up the company; but the CHAIRMAN opposed it, as he said a meeting must be called specially for the purpose.

Mr. SHEPPARD did not see the use of any committee, now they were likely to be in a better condition, for he understood that unfortunate contract would expire in 1850.—Could the board inform him any thing near the sum they had lost annually by this agreement, in taking the produce at fixed prices?—The CHAIRMAN said, it certainly had been as high as 5000*l.* in one year. (Hear.)—The SECRETARY said, one year it reached 7000*l.*

Mr. SHEPPARD said, it was a most unfortunate contract, but it was agreed to by the proprietors, and he dare say he was himself one of the parties.

The CHAIRMAN observed: You were, Mr. Sheppard. (Hear, hear, and laughter.) That sum would now be much reduced, as the directors had got the tenants to agree to an alteration of the contract, by which the company did not engage to take their potatoes, but only their corn. This would reduce the liability of the company to about 2000*l.* for the year. Their late chairman was in the habit of taking a sanguine view of their property, which was very well if a market could always be found. He having taken a more reasonable view of their position, would say that after they had met all their engagements as honourable men, and another year had expired, they would find no further calls necessary, and would know the worst that could happen to the company. Their tenantry were now prosperous, and with their increase and prosperity the value of the land of the company must be enhanced. They had the prospect of a steady rental, provided they got tenants for all the land fit for cultivation, of 4200*l.* a year; he was not prepared to say that this would be all in money; but it would be in that and cleared land produce, or something of value.—A PROPRIETOR thought that produce would not be good for payment of rent.

Mr. HENTY (the late agent of the company in the colony) said, he could declare it would; he stated that from experience.

The SECRETARY said, Mr. Henty was a man of 20 years' experience in the colony.

The CHAIRMAN could not see why produce should not be as good payment as anything else; they would no longer be bound to fixed prices. (Hear, hear.) He would here mention that the live stock on the company's estates on the 1st of February was 9622 sheep, 2299 cattle, 204 horses, and 72 deer, the total value of which was estimated at 9000*l.* They had at their bankers 1854*l.*; there was a balance of call yet to be received, with the other call, of 4400*l.*, and the estimated produce of 75 bales of wool, 1200*l.*—so that, after making this call, the directors would not have too large a balance in hand.—The chairman stated to the meeting, that the town allotments at Stanley had risen from 10*l.* to 80*l.* the quarter acre.

After some discussion, in which Mr. Palmer, Mr. Yates, Mr. Sheppard, and others, took part, the CHAIRMAN read an account, from a Van Diemen's Land journal, of the visit of the Bishop of Tasmania to the company's property at Circular Head, when his lordship expressed himself much pleased to witness the prosperous state of the settlers, and the large sums which the company had devoted to the purposes of religion and instruction in the colony. (Hear, hear.) He concluded his observations with a hope that after twelvemonths the proprietors would be no longer troubled with calls.

The estimate for the ensuing year was read to the meeting, by which it appeared that the receipts from land would be 1500*l.*; wool, 1000*l.*; and from live stock, 1050*l.*—making together 3550*l.*; against an expenditure of 2073*l.* 10*s.*; leaving a balance of about 1500*l.* in favour of the company.

Mr. PALMER moved, and Mr. SHEPPARD seconded, a vote of thanks to the chairman and directors, which was passed unanimously.—The meeting then separated.

CAMERON'S STEAM COAL AND LOUGHOR RAILWAY COMPANY.

The half-yearly meeting of shareholders was held at the offices, Moorgate-street, on Tuesday, the 31st July, to receive the report of the directors, and to proceed to an election in the room of those who retire in accordance with the Deed of Settlement. E. G. WINTHROP, Esq., in the chair.

The advertisement convening the meeting having been read by the SECRETARY, the report of the directors was laid before the meeting.

From the report, it appeared that the difference existing between the proprietors had seriously affected the interests of the company, the want of unanimity of feeling necessarily militating against the success of the undertaking. It was not the desire or intention of the directors to cast imputations or make charges against any portion of the shareholders, however such course as they had pursued was calculated to injure the company, yet such could not be passed over unnoticed. It will be recollected at the last annual meeting, on the 28th July, 1848, a committee was appointed to enquire into the affairs of the company. An extraordinary meeting was also held on the same day, when it was agreed that the remaining amount of 4*l.* per share should be called upon to liquidate the debts of the comany, and put it in good working condition. Some few parties had paid up their calls, which had been applied to the liquidation of claims upon the company, but others had been advised to resist the call, but afterwards submitted to the payment of 1*l.* per share, and the transfer of the shares held by them to other parties, for the benefit of the company, which, if taken at 7*l.* per share, was equal to upwards of 25,500*l.*; an arrangement which, while it relieved the parties from their shares, it was believed would be ultimately beneficial for the company. The directors felt that it would be greatly for the benefit of the company that they should be able to resume the working of their colliery, but there were still liabilities pressing upon them, some of which must be immediately met. In order to do that, the directors wished to study, as far as possible, the convenience of the proprietors; and to abstain from making compulsory calls, they would rather borrow the money; and negociations had been going on with the view of meeting the engagements of the company, and carrying on the collieries, if it met with the approval of the proprietors. In order to benefit the company, arrangements had been made with the vendor, by which the company would postpone all payments on account of the principal of his debt for five years; all interest from the 4th of June last, for three years; and all dividends (except 2000 shares) for three years from the time of their being commenced to be paid to the proprietors, so that, until the collieries made a good return, the company would be free from any calls upon it. With regard to the future prospects of the collieries, the company was possessed of a coal-field of 1300 acres, situate five miles from Swansea, about the same distance from Llanelly, and one only from the South Wales Railway. There were three courses open to the company: in order to bring their coals to ports where they might be shipped, they could make a line to Swansea or to Llanelly of five miles in length, or they could make a short line of one mile to a junction with the South Wales, which would then convey their coals to Swansea, where the company had wharfage and every accommodation for shipping their coal. The latter course was the one recommended by the directors, who had been in negociation with the directors of the South Wales Company, with a view to induce them to complete that portion of their line, and they believed they would be successful. It proposed, in the first instance, to construct the portion of the railway from the colliery to the South Wales Railway, and also a line of about 2½ miles in length from the colliery to the Llanelly Railway, a portion of the former being already constructed—the cost estimated at about 5000*l.* Mr. Dagleish, the mining engineer, recommended the opening of the mineral ground extensively, and suitable machinery to work it, so as to obtain 1000 tons per day, but not less than 200,000 tons per annum. He considered that two of the mines will yield 11,050,000 tons, and recommends the raising of the largest quantity of coals per annum, and the immediate construction of the railways, estimating the minimum net profit on raising 150,000 tons per annum to the company at 2*s.* per ton, or 18,000*l.* per annum.

The report concluded by stating the accounts (which, however, were not read) had been audited by Messrs. Quilter, Ball, and Jay, the accountants, who highly approved of the manner in which they had been kept.

The report having been read, the CHAIRMAN observed, that it must be manifest to the proprietary that the company could not go on while any disunion existed. He for one had invested 5000*l.* in the undertaking, and could only express his full confidence as to the results, never having entertained but one opinion as to the advantages it presented, if only fairly supported by the necessary capital which all such works required, ere their resources could be fairly developed and profits realised. It would be in the recollection of the proprietors present, that Mr. Burls, with a party of dissentients, had caused much injury by the course they had adopted, and to which was to be attributed, in a great measure, the non-working of the colliery for the past 12 months. Mr. Burls had retracted the charges he had brought forward; and he trusted that henceforth they should proceed with the works with unanimity, to effect which he had only to observe that the board of directors would be most happy that some two or three of the shareholders in whom the body had confidence should be elected as directors, so as to strengthen the board, while two of its members were ready to retire, so as to create vacancies with such object.

Mr. DANFORD, sen., said the proprietors had no confidence in the management; 48,000*l.* had been already expended, without any beneficial results to the shareholders, every ton of coal being raised at a loss to the company, and yet dividends, after the rate of 12½ per cent. had been paid; while no profits, but, on the contrary, a heavy loss had accrued on every transaction. It was, in his opinion, impossible for the company to go on, and hence the sooner its affairs were wound up the better it would be for the proprietors. There were several points to which he was anxious to direct the attention of the meeting, amongst which was that of certain parties being relieved from the further responsibility on the shares held by them, which he considered was highly to be objected to, and which could not be legally done, the course taken having subjected the remaining shareholders to a twofold responsibility, there being only 85 shareholders now remaining.

Mr. SMALLBONE wished to offer an observation as to some remarks which had fallen. He was a considerable loser by the concern, and at that moment was paying 2*l.* 2*s.* a day to an agent to report upon the property.

The SECRETARY addressed the meeting at considerable length, as to the value of the property, and the prospects which it presented. From Mr. Dagleish's report, it appeared that 78,000 tons of coal per annum might be raised, which would give a handsome revenue to the company, if sold at only 2*s.* per ton profit. It should be borne in mind, that by the arrangement made by the directors with the dissentient shareholders, a capital of 25,500*l.* had been secured. such being the amount, as we understood, paid by the respective shareholders, whose shares had been transferred to certain directors. The amount required for paying off the liabilities might be set down at 4000*l.* to 5000*l.*, while it would require a further sum of 3000*l.* to construct the proposed line of railway, or, if extended to Llanelly, probably 1500*l.* more. The number of shares now existing was 16,000, of which, however, it appeared only 4000 were active, or contributory shares, the remaining 12,000 being held by the vendors—consequently, to raise a sum of 10,000*l.*, a further call of 2*l.* 10*s.* will be required.

Mr. HENDRICKS complained of the terms on which the arrangement had been made with the shareholders who had retired, and treated lightly the concessions said to have been made by the vendors. It appeared from the statement of the secretary, that the dissentients had transferred 3655 shares into the names of two of the directors. He would ask whether, by such act, the former holders had not been released, and the liabilities of the remaining shareholders, in like manner, increased.

The CHAIRMAN stated, that the committee had not released the shares so transferred from any liabilities. He then moved that the report be received. It may be here observed, no accounts were read or submitted to the meeting.

Mr. HALLETT suggested that the accounts and report be printed and circulated among the proprietary, and that the meeting be adjourned until the 16th August, which was in the end unanimously agreed to, as also that the letter of the vendors, with the proposed concessions, should be in like manner printed.

Messrs. Winthrop and Barham were re-elected as directors, and Mr. Strelly as auditor, the vacancies occasioned by the retirement of Messrs. N. and W. Cameron not having been filled up, but left open to the adjourned meeting.

A vote of thanks having been passed to the chairman, the meeting was accordingly adjourned.

SOUTHAMPTON DOCK COMPANY.—A half-yearly meeting of proprietors was held on Wednesday last, at the offices of the company—G. E. P. BARLOW, Esq., in the chair.—The directors, in their report, state that, for the first time since the docks were opened, they are unable to declare a progressive increase of business, owing to the general depression of trade and commercial enterprise, consequent upon the disturbed state of Europe. The net receipts for the half-year exhibit a decrease of 900*l.*, but the income of the company is more than sufficient to cover all expenses and liabilities. The directors are, therefore, precluded from declaring any dividend for the half-year; but they are satisfied that the company is in a safe and sound position, and they confidently look forward, when trade revives, to being enabled to report a progressive increase of dividend for the future.—The following is a statement of the gross receipts for the half-years ending respectively—

30th June, 1844	£ 958	13	4	31st Dec., 1844	£3059 14 1
30th June, 1845	3862	2	11	31st Dec., 1845	5115 8 1
30th June, 1846	4800	18	0	31st Dec., 1846	8402 3 5
30th June, 1847	7626	11	11	31st Dec., 1847	9707 2 8
30th June, 1848	9351	10	7	31st Dec., 1848	10182 18 0
30th June, 1849	10323	6	0		

CAMERON'S COALBROOK STEAM COAL AND SWANSEA AND LOUGHOR RAILWAY—DANFORD *v.* COMPANY.—In the Vice-Chancellor's Court, on Monday last, Mr. Lloyd, for the plaintiff in this case, moved for an injunction, restraining the directors and officers of the above company from taking any proceedings at the meeting, which was held on Tuesday, whereby plaintiff might be charged with, or made liable to pay, any call for money in respect of the shares he held. The counsel stated that a bill had been filed against the parties who had taken a prominent interest in the undertaking, and that a lawsuit had also commenced against plaintiff, to enforce a call, and it was believed the object of the meeting was to give validity to such call, in order to commence another action. The Solicitor-General, Mr. Bacon, and Mr. Cooper, opposed the motion. By an affidavit of an officer of the company, it was stated that the meeting was nothing more than the usual annual one—that it had nothing whatever to do with the making calls, or that it would in the slightest degree interfere with the action pending. His honour thought, that as the meeting, whatever it might be, could not give legality to calls if illegally made, or interfere with plaintiff's bill filed against defendants, or produce irreparable mischief, he must refuse the motion, with costs.

PLYMOUTH GREAT WESTERN DOCKS.—The plant of the late contractor has been taken at a valuation by the company; the works have also been again commenced; but we are informed that it is only the intention of the directors to spend from 600*l.* to 800*l.*, to secure the works commenced by the late contractor, and also to repair the Millbay Pier, which is stated to be in a precarious condition. The company have no contractor; but the securing of the above works is let to six workmen who were employed by the late contractor.

PREVENTION OF SMOKE AND ECONOMY OF FUEL.—In addition to the numerous plans and patents which have been submitted to the public, we have, on the present occasion, to notice that secured by Mr. Collins, and advertised in another column. It has been applied, for the past 15 months, at the Finsbury Saw Mills, to an engine of 15-horse power, where the consumption of coal has been reduced upwards of 30 per cent., and the engine doing double the work it formerly did. Another application at the paper mills (Joynson's), St. Mary Cray, where it has been in use eight or nine months, gives a saving of 40 per cent. in fuel, with the avoidance of all smoke. It is, we are given to understand, at present being applied at Smith's Distillery to a 40-horse power engine, with the view of further testing its efficacy on the point of economy; while from the construction of the apparatus, which consists in flues, and the transmission of cold and heated air, by means of conduits with bridges, having apertures for the admission and emission of the currents, there is no occasion to alter the setting, but by the additions secured by the patent—the expense of which, we are given to understand, does not exceed 10*s.* to 15*s.* per horse power. The terms of the patentee appear to us to be liberal, inasmuch that, in lieu of any premium, or money, for licence to use the patent, he is content with receiving a certain rental, based on the saving effected, or an absolute purchase of the use of the patent right for the term (13 years to run), after the rate of 25*s.* per horse power. The wear and tear, as may be naturally supposed, is diminished very considerably. Upon obtaining the results of the tests, to which Mr. Smith is about to submit the patent, we shall again return to the subject.

ELECTRIC CURRENTS.—M. Baumgartner has determined that the wires of electric telegraps are constantly affected by atmospheric electricity in fine as well as in stormy weather. His experiments were made on the telegraphs north and south of Vienna, and at times when the atmospheric temperature was not high, and when there was no appearance of a storm. The results are, first, the needle of the multiplier, introduced into the circuit, scarcely ever rests at zero; second, the deviations are of two kinds, the larger ones go even to 50°, the lesser vary from one-half to 8°. The former are much less frequent, and they change so much in direction and intensity, that it appears difficult to discover in them any law: the latter, on the contrary, seem to obey a simple law; the current passes during the day from Vienna and Gratz to Somering, and in the opposite direction during the night. The change seems to occur after the rising and after the setting of the sun. Third, when the air is dry and the sky clear, the regularity of the current is very marked; it is irregular during cold and rainy weather.

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This company is prohibited by their Deed of Constitution, duly registered in terms of the Act, from disputing a policy upon any ground whatever. All questions as to age, health, habits, and other matters deserving of inquiry, prior to the contract being entered into, are held as finally settled, when the assured receives his policy.

Copies of the annual report, and of the annual meeting of the members, prospectuses, and schedules, may be obtained by personal, or written, application to the Head Office, or any of the agents. ALEXANDER ROBERTSON, Manager. 44

DAMP AND GASEOUS EXHALATIONS.

SANATARY MEASURES.

All MEMBERS of BOARDS OF HEALTH are especially DIRECTED to the most EFFECTIVE MEANS which they can ADOPT to PREVENT the injurious and often FATAL EFFECTS upon the HEALTH of the COMMUNITY, arising from exhalations that are produced from moisture, decayed animal matter (as in grave-yards), stagnant water, and collections of foetid refuse, tending to produce a miasmatic state of atmosphere. In situations so effected, the impervious quality of the ASPHALTE of SEYSSEL renders it the most perfect PAVEMENT or COVERING that can be relied upon for hermetically closing, and thereby preventing the rising of moisture and escape of noxious vapours. The present extensive application of this material for covering roofs, terraces, and arches, for prevenating the percolation of wet, is strong evidence of its effectiveness for the above purposes, which is further confirmed by the following extract from the Report of the Commissioners on the Fine Arts:—

"In 1839, I superintended the construction of a house of three stories on the Lac d'Enghein. The foundation of the building is constantly in water, about 19½ inches below the level of the ground floor. The entire horizontal surface of the external and internal walls was covered at the level of the internal ground floor with a layer of SEYSSEL ASPHALTE,* less than half an inch thick, over which coarse sand was spread.

Since the above date, no trace of damp has shown itself round the walls of the lower story, which are for the most part painted in oil, of a grey stone colour. It is well known that the least moisture produces round spots, darker or lighter, on walls so painted. Yet the pavement of the floor, resting on the soil itself, is only about 2½ in. above the external surface of the soil, and only 19½ in., at the utmost, above that of the sheet of water.

The layer of Asphalte having been broken and removed, for the purpose of inserting the sills of two doors, spots indicating the presence of damp have been since remarked at the base of the door-posts."

* This method has been adopted at the new Houses of Parliament.

Seyssel Asphalte Company, Stangate, London. I. FARRELL, Secretary. 45

ROYAL COLLEGE OF CHEMISTRY,

OXFORD-STREET, LONDON.

The PRACTICAL COURSE OF INSTRUCTION in this INSTITUTION is under the direction of Dr. A. W. HOFMANN and assistants.

The NEXT SESSION will COMMENCE on MONDAY, the 1st of October next, and end on Saturday, the 23d of February, 1850.

The FEE for students working every day during the session, is..... £15 0 0
" " " four days in the week, is 12 0 0
" " " three days in the week, is 10 0 0
" " " two days in the week, is..... 7 0 0
" " " one day in the week, is 5 0 0

Hours of Attendance from Nine to Five.

Further particulars may be obtained on application to
WILLIAM JOHNSON, Secretary. 46

GEOLOGY.—Persons wishing to become ACQUAINTED

with this interesting BRANCH OF SCIENCE, will find their STUDIES greatly FACILITATED by means of ELEMENTARY COLLECTIONS, which can be had at TWO, FIVE, TEN, TWENTY, or FIFTY GUINEAS each, arranged and sold by
Mr. TENNANT, 149, STRAND, LONDON.

A COLLECTION for FIVE GUINEAS, which will illustrate the recent works on Geology, contains 200 specimens, in a mahogany cabinet, with five trays—viz.:

MINERALS which are the components of rocks, or occasionally imbedded in them—Quartz, agate, calcedony, jasper, garnet, zeolite, hornblende, augite, asbestus, felspar, mica, talc, tourmaline, calcareous spar, fluor, selenite, baryta, strontia, salt, sulphur, plumbago, bitumen, &c.

METALLIC ORES.—Iron, manganese, lead, tin, zinc, copper, antimony, silver, gold, platina, &c.

ROCKS.—Granite, gneiss, mica-slate, clay-slate, porphyry, serpentine, sandstones, limestones, basalt, lavas, &c.

FOSSILS from the Llandeilo, Wenlock, Ludlow, Devonian, carboniferous, lias, oolite, wealden, chalk, plastic clay, London clay, and crag formations, &c.

Mr. TENNANT gives PRIVATE INSTRUCTIONS in MINERALOGY, with a view to facilitate the study of Geology, and of the application of Mineral substances in the Arts, illustrated by an extensive collection of specimens, models, &c. 47

CWMBRAIN PATENT IRON REFINERY.—The

PROPRIETORS of IRON FORGES and MILLS are respectfully INVITED to MAKE TRIAL of Mr. BLEWITT'S REFINED IRON, or METAL, PREPARED by a

NEW PATENT PROCESS,

whereby the IRON is completely FREED from the IMPURITIES CONTRACTED in the BLAST-FURNACE, and, by judicious mixtures, rendered applicable to every kind of manufacture. Heretofore, the metal usually sold in the market has been produced from he worst pigs, scraps, and refuse of some particular blast-furnace, or set of furnaces, without any mixture, or any regard to quality, or the purpose for which it might be required. The PATENT METAL is PREPARED ON SYSTEM, and TO ORDER, for any of the following purposes:—

1. For BOILER and TANK-PLATES.
2. For TIN-PLATES, commonly called COKE-PLATES.
3. For STRONG CABLE BOLTS, RIVET, and ANGLE IRON.
4. This COMPOUND PUDDLED, beat under the hammer into a bloom, reheated, and rolled into a 6 or 6½-inch bar, makes TOPS and BOTTOMS for FLANCH and OTHER RAILS, of very superior quality, and attended with less waste than any other kind of iron used for that purpose. It is also well adapted for nail-rods, horse-shoes, and for other ordinary uses of the blacksmith.

The PATENT METAL is marked with a squirrel, and the initials "R. J. B.," and is to be had only at the "Cwmbrain Iron-Works," near Newport, Monmouthshire 48

WILLIAM BRUNTON, SEN., C.E., desires to call the attention of COALMASTERS generally, and their AGENTS, to his METHOD of

RAREFACTION FOR THE

VENTILATION OF COLLIERIES.

It is effected by a machine of the most simple and integral character; has no valves or separate moving parts; has no attrition; and all the friction is resolved into a foot pivot, moving in oil. When at rest, offers no impediment to the air ascending from the pit; is liable to no derangement, and very inexpensive. By this apparatus, which is driven by a steam-engine, or water-wheel, any degree of rarefaction necessary to ventilation is rendered certain, regular, under visible inspection, and perfect control, so that the current of air through a colliery may be greatly increased during the night, or any time the pit is not at work, and thereby prevent that stagnant and dangerous state of the air now so prevalent during suspension of work.

This machine also possesses the power whereby the atmosphere of a colliery can, in a quarter of an hour, be subjected to an exhaustion equal to half an inch of mercury; thereby powerfully drawing out the gas from the coal, and from the wastes and goaf ponds, during the absence of fire or light, and consequently of danger from explosion; and also the power of restoring the equilibrium, and clearing the colliery of fire-damp, before the men enter, by a more vigorous and energetic current of fresh air than has hitherto been attainable by the ordinary means of ventilation; and, by the repetition of this process any night the atmosphere of the colliery during the day would be in the same condition, as to efflux of gas, as if the barometer were rising, when it is well known and attested that the fissures of the colliery absorb rather than discharge gas.

One of these machines has been erected at Gelly Gaer Colliery, belonging to Thomas Powell, Esq., of the Gaer, near Newport, who, anxiously solicitous to diminish, by all practical means, the risk of human life in our collieries, has kindly permitted Mr. Brunton to invite gentlemen to inspect the machine and its capability.

W. Brunton may be professionally consulted as to the above, or any other subject of Mechanical Engineering, wherein he has had long and extensive experience.
Address W. Brunton, Newport, Monmouthshire. 49

WARRANTED SAFETY FUSE.—W. BRUNTON & CO.

beg to inform Mine Agents, Contractors, and Merchants, that having completed their Machinery for the MANUFACTURE of the ABOVE ARTICLE, they are enabled to offer FUSE of a very superior quality, and at considerably reduced prices.

W. B. & Co. can SUPPLY FUSE in ANY LENGTHS that may be required.
Penhellick Fuse Factory, Pool, Truro, Cornwall. 50

TESTIMONIALS.

We, the undersigned, hereby bear our testimony to the excellence of the Safety Fuse, manufactured by Messrs. Brunton and Co. We have had it in use in our mines; and, after sufficient trial, find it to be fully equal to any Fuse we have ever used:—

Carn Brea Mine.
R. H. Pike Purser.
John Lenten, James Miners, John Vivian, John James, } Agents.

North Pool Agents.
James Evans.
John Nancarrow.
Frederic Evans.

South Roskear Agents.
John Dunkin.
William Thomas.

Cook's Kitchen Agents.
Joseph Vivian.
Richard Bennetts.

Cook's Kitchen Agents.
John Ivey.
William Hitchens.

North Roskear Agents.
Joseph Vivian.
William Michell.
William Thomas.

Tincroft Agents.
Peter Floyd.
Thomas Stainsby.
Thomas Lean.
Henry Hocken.
Richard Martin.

William Nancarrow.
Alex. Eudey, Joseph Eudey, } *Wheal Agar Agents.*

WIRE ROPE.—The Undersigned beg to inform the public,

that they have become SOLE LICENSEES of Mr. ANDREW SMITH, for the MANUFACTURE and SALE of his PATENT WIRE ROPE; and having fitted their premises with his very superior improved machinery, have only to assure those who may favour them with their orders, that the same care and attention shall always be bestowed which, they have reason to believe, has secured them such general support.
LIGHTNING CONDUCTORS, SIGNAL CORD, and SASH LINE, always in stock.
WILKINS & WEATHERLY.
Patent Wire Rope Works, No. 39, High-street, Wapping, London. 51

INDURATED AND IMPERVIOUS STONE, CHALK, &c.

—AGENTS, with capital, are WANTED in all TOWNS to SUPPLY (under British and Foreign Patents) the great demand for HUTCHISONISED MATERIALS—hard as granite, impervious to moisture, vermin, &c.; the cheapest and most durable for all buildings, hydraulic, paving, monumental and decorative work.—The profits are large.
Apply to HUTCHISON & CO.,
East Temple Chambers, London, or Tunbridge Wells, Kent, stating name, address, and capital at command.

N.B.—Houses cured of damp. The produce of soft stone quarries, chalk, plaster of Paris, wood, pasteboard, and all absorbent materials indurated to resist frost, vermin, &c.
LICENCES GRANTED. 52

NOTICE.—WENHAM LAKE ICE SUPERSEDED!
(BY ROYAL LETTERS PATENT.)

MASTERS AND CO.'S PATENT SHERRY COBBLER

FREEZING AND COOLING JUG.

By this Patent Jug, spring water is congealed into the purest ice, on the table or sideboard, for Sherry Cobblers, &c., in FIVE MINUTES, at the cost of Twopence. The public is respectfully invited to see the process of this extraordinary and useful invention, as actually BOILING WATER CAN BE CONVERTED INTO ICE without the aid of ice!

Patentees of the Freezing Machines (by which 20 to 100 quarts of Desert-Ice can be made in a few minutes, and Rock Ice at the same time, and Wine cooled), Cooling Decanters, Refrigerators, Butter Coolers, and Percolators. By this last-mentioned article a bottle of wine, &c., can be cooled in a minute without ice, for one halfpenny.

MASTERS & CO.'S IMPROVED APPARATUS FOR MAKING PURE SODA WATER, LEMONADE, NECTAR, and all ÆRATED WATERS.—This apparatus needs only to be seen to be appreciated. Price 30s.—MASTERS & CO., PATENTEES,
294, REGENT-STREET, AND 7, MANSION-HOUSE-STREET, CITY.—Also,
BY ROYAL LETTERS PATENT,
MASTERS & CO.'S PATENT ROTARY BUFF KNIFE CLEANERS, which will clean and polish, equal to new, twelve knives in one minute, without noise or dust.

The various processes shown at Masters and Co.'s Show Rooms, 294, Regent-street, and 7, Mansion-house-street, City, and may also be seen at the Royal Botanic, Zoological, and Colosseum, Regent's-park, and the Polytechnic Institution, Regent-street.
294, REGENT-STREET, AND 7, MANSION-HOUSE-STREET, CITY. 53

HOUSE PAINTING WITHOUT SMELL.—Use the

SWEET OIL OF TURPENTINE, as certified by Dr. Serny. It goes further, dries quicker, lasts longer, adds to the brilliancy of colours, and prevents the many ill effects too often consequent in the use of the old turpentine. Sold in bottles from 6d. to 2s.; per gallon, 6s.—Bottles, packages, and booking, on one or two gallons, charged 1s. 6d. per gallon; on three or more gallons, 1s. per gallon extra.
Post-office orders to be made payable to THOMAS BARKER, at the
Sweet Oil of Turpentine Company's Depôt, Bream's-buildings, Chancery-lane.
CONTRACTS taken by the company at the usual prices of painting. 54

STEAM TO INDIA AND CHINA, VIA EGYPT.—Regular

MONTHLY MAIL (steam conveyance) for PASSENGERS and LIGHT GOODS to CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG-KONG.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY

BOOK PASSENGERS and RECEIVE GOODS and PARCELS for the ABOVE PORTS by their steamers—starting from Southampton on the 20th of every month; and from Suez on or about the 10th of the month.

BOMBAY.—Passengers for Bombay can proceed by this company's steamers of the 29th of the month, to Malta, thence to Alexandria by her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.

MEDITERRANEAN.—MALTA—On the 20th and 29th of every month. CONSTANTINOPLE—On the 29th of the month. ALEXANDRIA—On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th 17th, and 27th of the month.

For plans of the vessels, rates of passage-money, and to secure passages and ship cargo, apply at the company's offices, No. 122, Leadenhall-street, London; and 57, High-street, Southampton. 55

LOANS ON DEBENTURES.—The CALEDONIAN RAILWAY COMPANY

are prepared to RECEIVE TENDERS OF LOANS, in sums not less than £500.—Applications to be made or addressed to this office.
125, George-street, Edinburgh, May 30, 1849. D. RANKINE, Treasurer. 56

RAILWAY PASSENGERS' ASSURANCE COMPANY.

OFFICES—3, OLD BROAD-STREET, CITY.

ISSUE OF SINGLE JOURNEY ASSURANCE TICKETS.

On and from WEDNESDAY, the 1st of August, ASSURANCE TICKETS will be OBTAINABLE at the principal STATIONS of the LONDON AND NORTH-WESTERN RAILWAY, by which tickets persons may secure the payment of a sum of money in the event of loss of life, or personal injury happening to them while travelling by railway, on the following terms:—

First-class passenger,	3d.,	to insure	£1000
Second "	2d.,	"	500
Third "	1d.,	"	200

(For the journey, irrespective of distance.)

The Single Journey Ticket will cover the risk to the assured of travelling the distance for which the railway ticket is issued, except in the case of a return ticket, when the party must effect a second assurance.

Arrangements are being made with other railway companies, to afford similar accommodation to the public. The issue of Insurance Tickets on the Lancashire and Yorkshire Railway will commence on Friday, the 3d August; and announcements regarding other lines will appear as soon as the arrangements are completed.

The company also grants Periodical or Season Tickets, to correspond with the periodical tickets issued by many railway companies, on the following terms:—

FIRST-CLASS PASSENGERS ASSURED IN THE SUM OF £1000.

For three months, at a premium of	£0	10	0
For six months, " "	0	16	0
For twelve months " "	1	0	0

SECOND-CLASS PASSENGERS ASSURED IN THE SUM OF £500.

For three months, at a premium of	£0	7	0
For six months, " "	0	11	0
For twelve months, " "	0	14	0

This class of insurance is intended for the especial benefit of commercial travellers, and that of persons having periodical railway tickets on any of the railways in the kingdom.

All the premiums charged include the stamp duty, which will be payable to Government by the company.

The sums for which persons are assured will be paid to their representatives in the event of an accident terminating fatally; and when it results in personal injuries only, liberal and immediate compensation will be made, in conformity with the Act of Parliament; and in such cases the company will send one of its officers to the spot, provided with money to make advances to any of the assured who may require such assistance; and having authority to make such other general arrangements for the comfort of the sufferers as may be deemed expedient, until the proper amount of compensation in each particular case can be determined.

Forms of application for Periodical Tickets of Insurance may be had at the offices of the company. ALEXANDER BEATTIE, Secretary. 57

PATENT RAILWAY AND OTHER CARRIAGE AXLES,

MANUFACTURED BY THE

PATENT SHAFT AND AXLE-TREE COMPANY,

BRUNSWICK IRON-WORKS, WEDNESBURY, STAFFORDSHIRE.

The Judicial Committee of the Privy Council having declared that the AXLES MADE BY THE PATENT SHAFT AND AXLE-TREE COMPANY had proved a PUBLIC BENEFIT in greatly conducing to the SAFETY of RAILWAY TRAVELLING, the exclusive right to manufacture has been extended for four years, on condition that the practice of charging a moderate price, proved hitherto to have been pursued, should be made imperative.

It was also proved that these Axles were in general use—upwards of 100,000 having been supplied to the English and Continental Railways, among whom are the London and North-Western, the Midland, and the Great Western; that they had withstood frequently severe tests applied by the engineers of these railways for the purpose of experiment, and others still more severe to which they were accidentally subjected in use. In one such instance a Patent Axle, 4¼ inches in diameter, sustained the whole force of a heavy train going at the rate of 60 miles an hour, by which it was twisted and bent nearly double, without showing the least fracture.

The patent principle of manufacture causes the axles to be equally strong in all directions, for the "faggot" is made in a cylindrical form, by the external bars being rolled of such a section as to fit accurately around a centre bar. This faggot, however large, is perfectly welded throughout its whole length at one heat, avoiding the necessity of the frequent heating and hammering of the ordinary mode, by which much risk is run of imperfectly welding, burning, and otherwise injuring the iron.

The use of this principle, combined with experience gained of the quality and admixture of the iron and mode of treatment best adapted to resist the strain to which an axle is subjected, enables the Patent Shaft Company uniformly to supply safe axles.

In all cases where the use of the Patent Shaft Company's Axles are specified for, it is respectfully recommended that information be sent to the works; for, although every Patent Axle is stamped with the company's name, worthless axles, made at an expense little beyond that of common bar-iron, have, in many instances, been substituted.

It was given in evidence before the Privy Council, by Robert Stephenson, Esq., M.P., that having, in consequence of an accident, tested a number of such common axles, he found 48 out of 50 broke so easily as to be perfectly unfit for use: that he ordered them all to be removed, and that he has since recommended the Patent Axles to be used exclusively.

The trial of the Patent Shaft Company's Iron is solicited in cases where the power to resist a great strain is of importance. Evidence can be afforded from several railway engineers, of great economy having resulted from its use, in preventing the breakage to which their coupling chains were frequently previously subjected, particularly on the Midland Railway, where the heavy mineral traffic subjects these chains to unusual strains.

Iron manufactured on the patent principle is also recommended for coach and carriage axles, for, if not afterwards injured by the coachsmith, all risk of breakage will be avoided. 58

THE PATENT OFFICE AND DESIGNS REGISTRY,

No. 210, STRAND, LONDON.

INVENTORS will receive (gratis), on application, the OFFICIAL CIRCULAR OF INFORMATION, detailing the eligible course for PROTECTION of INVENTIONS and DESIGNS, with Reduced Scale of Fees.

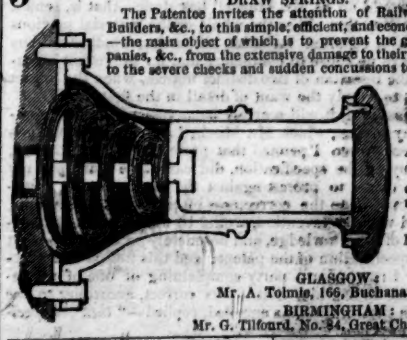
Messrs. F. W. CAMPIN and CO. offer their services, and the benefit of many years experience, in SECURING PATENTS and REGISTRATIONS OF DESIGNS, with due regard to VALIDITY, economy, and dispatch—assisted by scientific men of repute.

Also, in MECHANICAL and ENGINEERING DRAWINGS, whether connected with Patents, Railways, or otherwise, by a staff of first-rate draftsmen.

Application personally, or by letter, to F. W. Campin and Co., No. 210, Strand (corner of Essex-street). 59

BY HER MAJESTY'S ROYAL LETTERS PATENT.

JOHN BROWN'S CONICAL BUFFER, BEARING, AND DRAW SPRINGS.



The Patentee invites the attention of Railway Authorities, Carriage Builders, &c., to this simple, efficient, and economical BUFFER SPRING—the main object of which is to prevent the great loss accruing to companies, &c., from the extensive damage to their waggons, vans, &c., owing to the severe checks and sudden concussions to which they are subject.

Specimens may be seen and further information obtained of the PATENTEE, 66
ATLAS STEEL WORKS,
SHEFFIELD,
or of his AGENTS, as under:—

LONDON:
Mr. J. Freeman, 19, Artillery-place, Finsbury.

GLASGOW:
Mr. A. Tolmie, 166, Buchanan-street.

BIRMINGHAM:
Mr. G. Tilfourd, No. 84, Great Charles-street.

IMPROVED LIFTING JACKS.

IMPROVED RATCHET JACK. HALEY'S PATENT LIFTING JACK.

MANUFACTURED BY
W. AND J. GALLOWAY,
PATENT RIVET WORKS,
MANCHESTER.

*** The attention of parties who employ

Lifting Jacks,

is respectfully requested to the superiority of those annexed, over those hitherto in use. 61

London: Printed by RICHARD MIDDLETON, and published by HENRY ENGLISH (the proprietors), at their offices, No. 26, FLEET-STREET, where all communications are requested to be addressed. [August 4, 1849.